					ı	ST DEPARTMENT DIVISION O	OF NA			6		AMEN	FO NDED REPC	RM 3			
		APP	LICATION F	OR	PERM	IIT TO DRILL	-				1. WELL NAME and		E R 1023-5N4A	S			
2. TYPE (RILL NEW WELL (I	REENTE	R P&/	A WELL	L DEEPE	N WELL				3. FIELD OR WILDCAT NATURAL BUTTES						
4. TYPE C		Gas				hane Well: NO					5. UNIT or COMMUNITIZATION AGREEMENT NAME						
6. NAME	OF OPERATOR	t .	RR-MCGEE OI								7. OPERATOR PHONE 720 929-6515						
8. ADDRE	SS OF OPERA	TOR									9. OPERATOR E-MA	IL	@anadarko	com			
P.O. Box 173779, Denver, CO, 80217 10. MINERAL LEASE NUMBER (FEDERAL, INDIAN, OR STATE) FEDERAL (FEDERAL) FEDERAL (FEDERAL) FEDERAL (FEDERAL) FEDERAL (FEDERAL) FEDERAL (FEDERAL) FEDERAL (FEDERAL) FEDERAL (FEDERAL)										_	12. SURFACE OWNI	RSHIP		_			
		UTU73450	12 = 'fee')		FEDE	RAL 📵 IND	IAN () STATE (_) FEI		FEDERAL INI	DIAN () STATE		FEE ()		
13. NAME OF SURFACE OWNER (if box 12 = 'fee') 15. ADDRESS OF SURFACE OWNER (if box 12 = 'fee')									16. SURFACE OWNI								
					10 TA	NTEND TO COM	IMING	E PRODUCT	TON EDO	м	19. SLANT						
	AN ALLOTTEE 2 = 'INDIAN')	OR TRIBE NAME				IPLE FORMATI	IONS	gling Applicat		_	_	ECTION	AL 📵	HORIZON	ITAL 🛑		
20. LOC	ATION OF WE	LL		FO	OTAGE	:s	QT	r-QTR	SEC	TION	TOWNSHIP	R	ANGE	МЕ	RIDIAN		
LOCATIO	ON AT SURFAC	CE	22	0 FSL	1060	0 FWL	5	SWSW	į	5	10.0 S	2	3.0 E		S		
Top of U	ppermost Pro	ducing Zone	63	0 FSL	2453	3 FWL	9	SESW	5	5	10.0 S	2	3.0 E		S		
At Total	Depth		63	0 FSL	2453	3 FWL	9	SESW 5		5 10.0 S		23.0 E			S		
21. COUN	ITY	UINTAH			22. DISTANCE TO NEAREST LEASE LINE (Feet) 140				23. NUMBER OF AC		DRILLING	UNIT					
						ISTANCE TO N ied For Drilling	g or Co		AME PO	OL	26. PROPOSED DEP		TVD: 838	39			
27. ELEV	ATION - GROU	JND LEVEL 5297			28. B	OND NUMBER	WYB0	000291			29. SOURCE OF DRILLING WATER / WATER RIGHTS APPROVAL NUMBER IF APPLICABLE 43-8496						
						lole, Casing,				n							
String Surf	Hole Size	Casing Size 8.625	0 - 2270		ight 8.0	Grade & Th					Cement Type V			Yield 1.15	Weight 15.8		
Suii	11	6.023	0 - 2270		5.0	J-33 LIC	XC .	0.,	1.2		Type V Class G		180 270	1.15	15.8		
Prod	7.875	4.5	0 - 8628	1:	1.6	I-80 LT8	&C	12.5 Prer			Premium Lite High Strength			3.38	11.0		
								12.5 Premium Lite High Strength 280 50/50 Poz 1170			1.31	14.3					
						A	ТТАСН	IMENTS									
	VERIFY T	HE FOLLOWIN	G ARE ATT	АСНІ	ED IN	I ACCORDAN	CE WI	TH THE U	тан оіі	L AND (GAS CONSERVATI	ON GE	NERAL F	ULES			
w w	ELL PLAT OR	MAP PREPARED E	BY LICENSED	SUR	VEYOR	R OR ENGINEER	R	СОМ	IPLETE D	RILLING	i PLAN						
AF	FIDAVIT OF S	TATUS OF SURFA	CE OWNER A	GRE	EMENT	「(IF FEE SURF	ACE)	FOR	4 5. IF O	PERATO	R IS OTHER THAN TI	HE LEAS	SE OWNER	l			
DRILLED																	
NAME G	ina Becker			TI	TLE Re	egulatory Analys	st II			PHON	E 720 929-6086						
SIGNAT	URE			D/	ATE 10	0/17/2011				EMAIL	gina.becker@anadarl	ko.com					
	iber assign 047520800			AF	PPROV	/AL				Berr	OCHAIL nit Manager						

Bonanza 1023-5M Pad Drilling Program

1 of 4

Kerr-McGee Oil & Gas Onshore. L.P.

BONANZA 1023-5N4AS

Surface: 220 FSL / 1060 FWL SWSW BHL: 630 FSL / 2453 FWL SESW

Section 5 T10S R23E

Uintah County, Utah Mineral Lease: UTU-73450

ONSHORE ORDER NO. 1

DRILLING PROGRAM

1. & 2. <u>Estimated Tops of Important Geologic Markers</u>: <u>Estimated Depths of Anticipated Water, Oil, Gas, or Mineral Formations</u>:

<u>Formation</u>	<u>Depth</u>	<u>Resource</u>
Uinta	0 - Surface	
Green River	1211	
Birds Nest	1469	Water
Mahogany	1823	Water
Wasatch	4181	Gas
Mesaverde	6254	Gas
MVU2	7216	Gas
MVL1	7746	Gas
TVD	8389	
TD	8628	

3. **Pressure Control Equipment** (Schematic Attached)

Please refer to the attached Drilling Program

4. <u>Proposed Casing & Cementing Program:</u>

Please refer to the attached Drilling Program

5. <u>Drilling Fluids Program:</u>

Please refer to the attached Drilling Program

6. <u>Evaluation Program:</u>

Please refer to the attached Drilling Program

Bonanza 1023-5M Pad Drilling Program
2 of 4

7. **Abnormal Conditions:**

Maximum anticipated bottom hole pressure calculated at 8389' TVD, approximately equals 5,369 psi (0.64 psi/ft = actual bottomhole gradient)

Maximum Anticipated Bottom Hole Pressure (MABHP) = Pore Pressure at TD

Maximum anticipated surface pressure equals approximately 3,512 psi (bottom hole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot, per Onshore Order No. 2).

Per Onshore Order No. 2 - Max Anticipated Surf. Press.(MASP) = (Pore Pressure at next csg point-(0.22 psi/ft-partial evac gradient x TVD of next csg point))

8. <u>Anticipated Starting Dates:</u>

Drilling is planned to commence immediately upon approval of this application.

9. Variances:

Please refer to the attached Drilling Program. Onshore Order #2 – Air Drilling Variance

Kerr-McGee Oil & Gas Onshore LP (KMG) respectfully requests a variance to several requirements associated with air drilling outlined in Onshore Order 2

- · Blowout Prevention Equipment (BOPE) requirements;
- · Mud program requirements; and
- Special drilling operation (surface equipment placement) requirements associated with air drilling.

This Standard Operating Practices addendum provides supporting information as to why KMG current air drilling practices for constructing the surface casing hole should be granted a variance to Onshore Order 2 air drilling requirements.

The reader should note that the air rig is used only to construct a stable surface casing hole through a historically difficult lost circulation zone. A conventional rotary rig follows the air rig, and is used to drill and construct the majority of the wellbore.

More notable, KMG has used the air rig layout and procedures outlined below to drill the surface casing hole in approximately 675 wells without incident of blow out or loss of life.

Background

In a typical well, KMG utilizes an air rig for drilling the surface casing hole, an interval from the surface to surface casing depths, which varies in depth from 1,700 to 2,800 feet. The air rig drilling operation does not drill through productive or over pressured formations in KMG field, but does penetrate the Uinta and Green River Formations. The purpose of the air drilling operation is to overcome the severe loss circulation zone in the Green River known as the Bird's Nest while creating a stable hole for the surface casing. The surface casing hole is generally drilled to approximately 500 feet below the Bird's Nest.

Bonanza 1023-5M Pad Drilling Program
3 of 4

Before the surface air rig is mobilized, a rathole rig is utilized to set and cement conductor pipe through a competent surface formation. Generally, the conductor is set at 40 feet. In some cases, conductor may be set deeper in areas that the surface formation is not found competent. This rig also drills the rat and mouse holes in preparation for the surface casing and production string drilling operations.

The air rig is then mobilized to drill the surface casing hole by drilling a 12 1/4 inch hole for the first 200 feet, then will drill a 11inch hole to just above the Bird's Nest interval with an air hammer. The hammer is then tripped and replaced with a 11 inch tri-cone bit. The tri-cone bit is used to drill to the surface casing point, approximately 500 feet below the loss circulation zone (Bird's Nest). The 8-5/8 inch surface casing is then run and cemented in place, thereby isolating the lost circulation zone.

KMG fully appreciates Onshore Order 2 well control and safety requirements associated with a typical air drilling operations. However, the requirements of Onshore Order 2 are excessive with respect to the air rig layout and drilling operation procedures that are currently in practice to drill and control the surface casing hole in KMG Fields.

Variance for BOPE Requirements

The air rig operation utilizes a properly lubricated and maintained air bowl diverter system which diverts the drilling returns to a six-inch blooie line. The air bowl is the only piece of BOPE equipment which is installed during drilling operations and is sufficient to contain the air returns associated with this drilling operation. As was discussed earlier, the drilling of the surface hole does not encounter any over pressured or productive zones, and as a result standard BOPE equipment should not be required. In addition, standard drilling practices do not support the use of BOPE on 40 feet of conductor pipe.

Variance for Mud Material Requirements

Onshore Order 2 also states that sufficient quantities of mud materials shall be maintained or readily accessible for the purpose of assuring adequate well control. Once again, the surface hole drilling operations does not encounter over pressured or productive intervals, and as a result there is not a need to control pressure in the surface hole with a mud system. Instead of mud, the air rigs utilize water from the reserve pit for well control, if necessary. A skid pump which is located near the reserve pit (see attachment) will supply the water to the well bore.

Variance for Special Drilling Operation (surface equipment placement) Requirements

Onshore Order 2 requires specific safety distances or setbacks for the placement of associated standard air drilling equipment, wellbore, and reserve pits. The air rigs used to drill the surface holes are not typical of an air rig used to drill a producing hole in other parts of the US. These are smaller in nature and designed to fit a KMG location. The typical air rig layout for drilling surface hole in the field is attached.

Typically the blooie line discharge point is required to be 100 feet from the well bore. In the case of a KM0 well, the reserve pit is only 45 feet from the rig and is used for the drill cuttings. The blooie line, which transports the drill cuttings from the well to the reserve pit, subsequently discharges only 45 feet from the well bore.

Typically the air rig compressors are required to be located in the opposite direction from the blooie line and a minimum of 100 feet from the well bore. At the KMG locations, the air rig compressors are approximately 40 feet from the well bore and approximately 60 feet from the blooie line discharge due to the unique air rig design. The air compressors (see attachment) are located on the rig (1250 cfm) and

Bonanza 1023-5M Pad Drilling Program
4 of 4

on a standby trailer (1170 cfm). A booster sits between the two compressors and boosts the output from 350 psi to 2000 psi. The design does put the booster and standby compressor opposite from the blooie line.

Lastly, Onshore Order 2 addresses the need for an automatic igniter or continuous pilot light on the blooie line. The air rig does not utilize an igniter as the surface hole drilling operation does not encounter productive formations.

Variance for FIT Requirements

KMG also respectfully requests a variance to Onshore Order 2, Section III, Part Bi, for the pressure integrity test (PIT, also known as a formation integrity test (FIT)). This well is not an exploratory well and is being drilled in an area where the formation integrity is well known. Additionally, when an FIT is run with the mud weight as required, the casing shoe frequently breaks down and causes subsequent lost circulation when drilling the entire depth of the well.

Conclusion

The air rig operating procedures and the attached air rig layout have effectively maintained well control while drilling the surface holes in KMG Fields. KMG respectfully requests a variance from Onshore Order 2 with respect to air drilling well control requirements as discussed above.

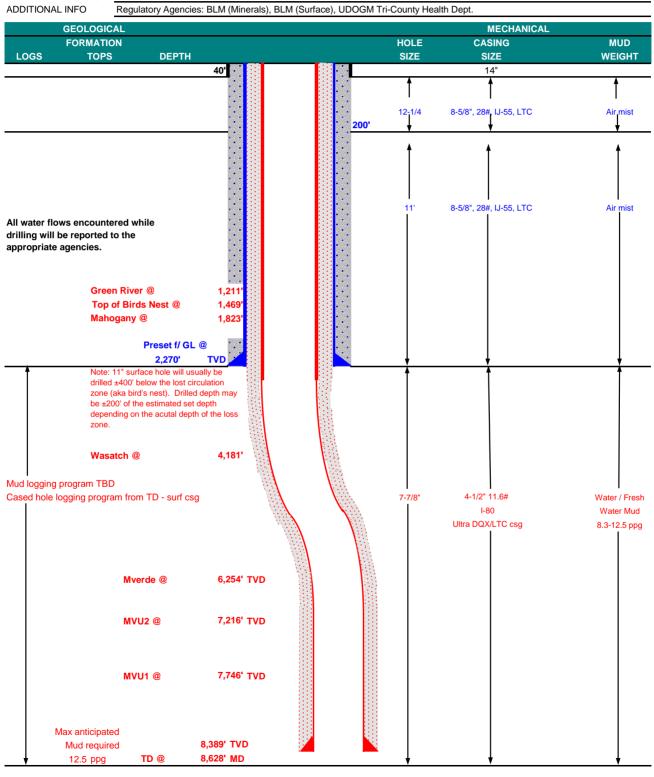
10. <u>Other Information:</u>

Please refer to the attached Drilling Program.



KERR-McGEE OIL & GAS ONSHORE LP DRILLING PROGRAM

COMPANY NAME KER	R-McGEE O	L & GAS ONSI	HORE LP		DATE	October	r 14, 2011	
WELL NAME BO	NANZA 10	23-5N4AS			TD	8,389'	TVD	8,628' MD
FIELD Natural Butte	S	COUNTY	Uintah	STATE Uta	ah	FINI	SHED ELEVATION	5296.7
SURFACE LOCATION	SWSW	220 FSL	1060 FWL	Sec 5	T 108	R 23E		
	Latitude:	39.971304	Longitud	le: -109.35	6338		NAD 83	
BTM HOLE LOCATION	SESW	630 FSL	2453 FWL	Sec 5	T 10S	R 23E		
	Latitude:	39.972434	Longitud	le: -109.35	1368		NAD 83	
OBJECTIVE ZONE(S)	Wasatch/M	esaverde						
ADDITIONAL INFO	Regulatory	Agencies: BLM	(Minerals), BI	LM (Surface), UDOGN	1 Tri-County	Health Dept.	





KERR-McGEE OIL & GAS ONSHORE LP

DRILLING PROGRAM

CASING PROGRAM

CONDUCTOR

PRODUCTION

									LTC	DQX
SIZE	INTE	RVAL		WT.	GR.	CPLG.	BURST	COLLA	APSE	TENSION
14"	0	-40'								
							3,390	1,880	348,000	N/A
8-5/8"	0	to	2,270	28.00	IJ-55	LTC	2.38	1.77	6.25	N/A
							7,780	6,350	223,000	267,035
4-1/2"	0	to	5,000	11.60	I-80	DQX	1.11	1.16		3.30
4-1/2"	5,000	to	8,628'	11.60	I-80	LTC	1.11	1.16	6.55	

DESIGN FACTORS

Surface Casing:

(Burst Assumptions: TD = 12.5 ppg) 0.73 psi/ft = frac gradient @ surface shoe

Fracture at surface shoe with 0.1 psi/ft gas gradient above

(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

Production casing:

(Burst Assumptions: Pressure test with 8.4ppg @ 7000 psi) 0.64 psi/ft = bottomhole gradient

(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

CEMENT PROGRAM

	FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGH	НТ	YIELD
SURFACE LEAD	500'	Premium cmt + 2% CaCl	180	60%	15.80		1.15
Option 1		+ 0.25 pps flocele					
TOP OUT CMT (6 jobs)	1,200'	20 gals sodium silicate + Premium cmt	270	0%	15.80		1.15
		+ 2% CaCl + 0.25 pps flocele					
SURFACE		NOTE: If well will circulate water	to surface,	option 2 wi	ll be utilized		
Option 2 LEAD	1,770'	65/35 Poz + 6% Gel + 10 pps gilsonite	160	35%	11.00		3.82
		+ 0.25 pps Flocele + 3% salt BWOW					
TAIL	500'	Premium cmt + 2% CaCl	150	35%	15.80		1.15
		+ 0.25 pps flocele					
TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.80		1.15
PRODUCTION LEAD	3,678'	Premium Lite II +0.25 pps	280	20%	11.00		3.38
		celloflake + 5 pps gilsonite + 10% gel					
		+ 0.5% extender					
TAIL	4,950'	50/50 Poz/G + 10% salt + 2% gel	1,170	35%	14.30		1.31
		+ 0.1% R-3					

^{*}Substitute caliper hole volume plus 0% excess for LEAD if accurate caliper is obtained

FLOAT EQUIPMENT & CENTRALIZERS

\circ		_ ^	\sim	_
SU	ıĸ	FΡ	ıL	Е.

Guide shoe, 1 jt, insert float. Centralize first 3 joints with bow spring centralizers. Thread lock guide shoe

PRODUCTION

Float shoe, 1 jt, float collar. No centralizers will be used.

ADDITIONAL INFORMATION

Test casing head to 750 psi after installing. Test surface casing to 1,500 psi prior to drilling out.

BOPE: 11" 5M with one annular and 2 rams. The BOPE will be installed before the production hole is drilled and tested to 5,000 psi (annular to 2,500 psi) prior to drilling out the surface casing shoe. Record on chart recorder and tour sheet. Function test rams on each trip. Maintain safety valve and inside BOP on rig floor at all times. Most rigs have top drives; however, if used, the Kelly is to be equipped with upper and lower kelly valves.

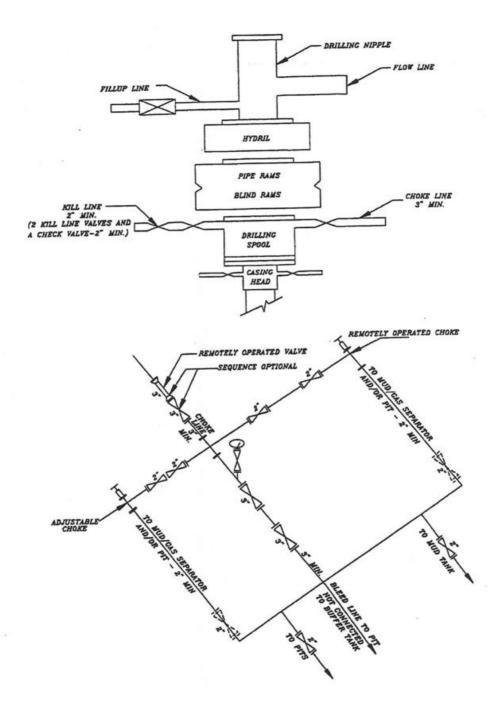
Surveys will be taken at 1,000' minimum intervals.

Most rigs have PVT System for mud monitoring. If no PVT is available, visual monitoring will be utilized.

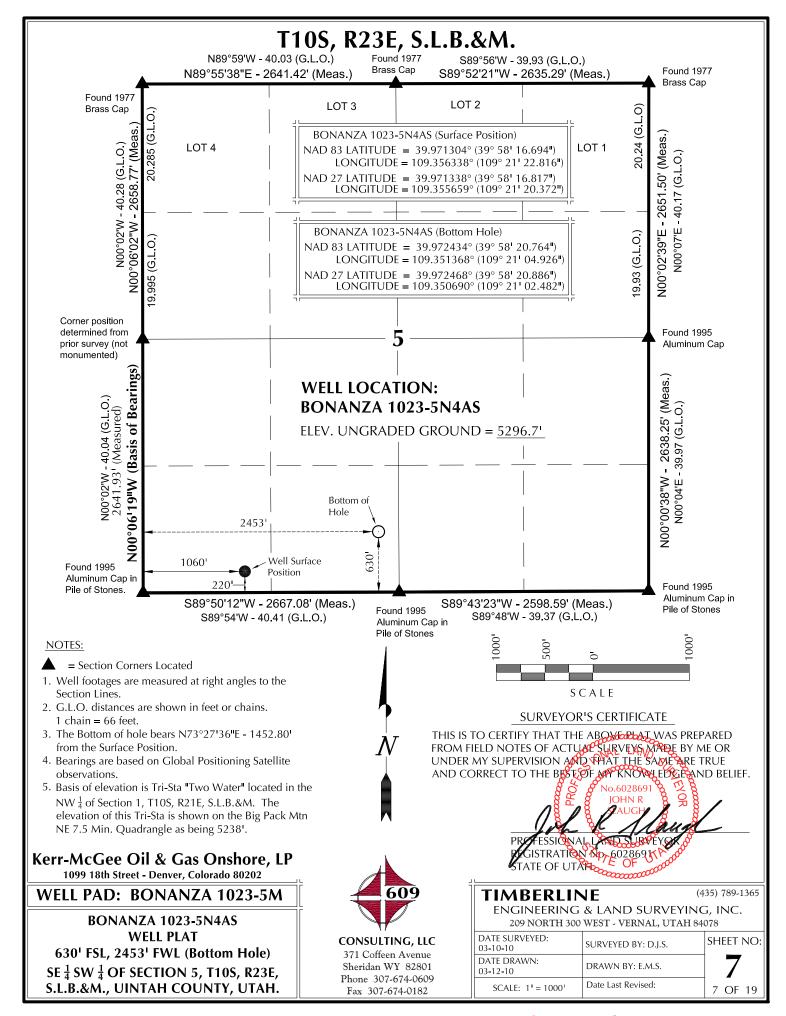
DRILLING ENGINEER:		DATE:	
	Nick Spence / Danny Showers / Chad Loesel		
DRILLING SUPERINTENDENT:		DATE:	
	Kenny Gathings / Lovel Young		

^{*}Substitute caliper hole volume plus 10% excess for TAIL if accurate caliper is obtained

EXHIBIT A BONANZA 1023-5N4AS



SCHEMATIC DIAGRAM OF 5,000 PSI BOP STACK



			SURFACE PO	SITION						ВО	OTTOM HOLE		
WELL NAME	NA LATITUDE	LONGIT	UDE LATITU	NAD27	GITUDE FO	OTACES	LATIT	NAD	83 LONGIT	TIDE	NAI LATITUDE	D27 LONGITUDE	FOOTAGES
BONANZA	39°58'16.517					OTAGES 03" FSL			109°21'35		39°58'16.313"	109°21'33.270"	171' FSL
1023-5M3CS	39.971255°	109.35657	'9° 39.97128	9° 109.35.	5900° 99	2' FWL	39.971	164°	109.35992	21° 3	39.971198°	109.359242°	55' FWL
BONANZA 1023-5M3BS	39°58'16.543' 39.971262°			100 21		5' FSL	39°58'2 39.9722		109°21'33 109.35926		89°58'20.218" 89.972283°	109°21'30.898" 109.358583°	566' FSL 240' FWL
BONANZA	39°58'16.568'	109.35654 109°21'23	-			1' FWL 8' FSL	39°58'2		109.33926 109°21'24	_	39°58'22.541"	109.336363° 109°21'22.425'	800' FSL
1023-5M1CS	39.971269°	109.35651	1° 39.97130.	3° 109.35!	5832° 101	1' FWL	39.9728	394°	109.35690)8° 3	39.972928°	109.356229°	900' FWL
BONANZA 1023-5M1AS	39°58'16.593 39.971276°	109°21'23 109.35647		1.00	I	0' FSL 1' FWL	39°58'2 39.9738		109°21'22		39°58'25.834" 39.973843°	109°21'19.860'	11331 FSL
BONANZA	39°58'16.618					3¹ FSL			<u>109.35619</u> 109°21'14	, ,	39°58'09.838"	109.355517° 109°21'12.182'	1100' FWL 487' FNL
1023-8C2DS	39.971283°	109.35644				0' FWL	39.9693	366°	109.35406	53° 3	39.969400°	109.353384°	1697' FWL
BONANZA 1023-5N3CS	39°58'16.644 39.971290°	109°21'23 109.35640		1.05 2.		5' FSL 0' FWL	39°58'1 39.971:		109°21'16 109.3544		39°58'16.832" 39.971342°	109°21'13.561' 109.353767°	221' FSL 1590' FWL
BONANZA	39°58'16.694					:0' FSL	39°58'2	20.764"	109:33 44 109°21'04		39°58'20.886"	109:333767 109°21'02.482'	630' FSL
1023-5N4AS BONANZA	39.971304° 39°58'16.669	109.35633				0' FWL	39.972	434°	109.35136	58° 3	39.972468°	109.350690°	2453' FWL
1023-5M	39-38-16.669 39.971297°	109°21'22 109.35637			I	8' FSL 0' FWL							
		-		IVE COORD			Position	to Botto	m Hole				
WELL NAME	NORTH	EAST	WELL NAME	NORTH	EAST	WELL	NAME	NORT	Н	AST	WELL NAM	IE NORTH	EAST
BONANZA 1023-5M3CS	-34.21	-936.8	BONANZA	358.71	-762.21	BONA		592.0	O' -1	12.21	BONANZA	923.0	77.4'
WELL NAME	NORTH	EAST	1023-5M3BS WELL NAME	NORTH	EAST	1023-5 WELL	NAME	NORT	н	AST	1023-5M1A	13	
BONANZA	-697.8	667.8	BONANZA	7.2	549.8	BONA	NZA	413.0		392.7 ¹	1		
1023-8C2DS	337.10	227.0	1023-5N3CS	_ · · -	1 3.5.0	1023-5	N4AS	.15.0	- '~				
	S87	z=267.9 °54'28"V — — — (To Botto	0778° V - 937.40'		75	ON 10'	10' 10	BOZAZZ	// 	- - N8	(To Bottor 9°14'57"E Az=89.24		_
S75°0' AZ=25	OF THE SW S.L.B.&M. W GLOBAL PC	EARINGS IS 4 OF SECTI HICH IS T. SITIONING ONS TO BE	THE WEST LII ION 5, T10S, F AKEN FROM G SATELLITE EAR N00°06'19	223E,	ZA 10E	7A 1023-5M3BS AZ. 10 Exist. W.F.	1023-8C2U3 AZ. to Exist. W.H.=75.091	023-5 NACS AZ to Exist N.H.=75.0911	5N4AS AZ to Exist W.H.=2	7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	500	30 4 30 150 150 150 150 150 150 150 150 150 15	%. 23,
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	1023-5N3CS				Sheridan W			DATE	DRAWN:		DRAWN BY:	E 1.1.6	
				· II				03-12	-10		DKAWN D1.	E.M.S.	Λ
LOC	ATED IN SEC 3.&M., UINTA	TION 5, T10	0S, R23E,		Phone 307-6	674-060		03-12 SC	-10 CALE: 1" =	60¹	Date Last Re		8 OF 19

& BONANZA 1023-5N4AS

LOCATED IN SECTION 5, T10S, R23E,

S.L.B.&M., UINTAH COUNTY, UTAH

Sheridan, WY 82801

Phone 307-674-0609 Fax 307-674-0182

ENGINEERING & LAND SURVEYING, INC.

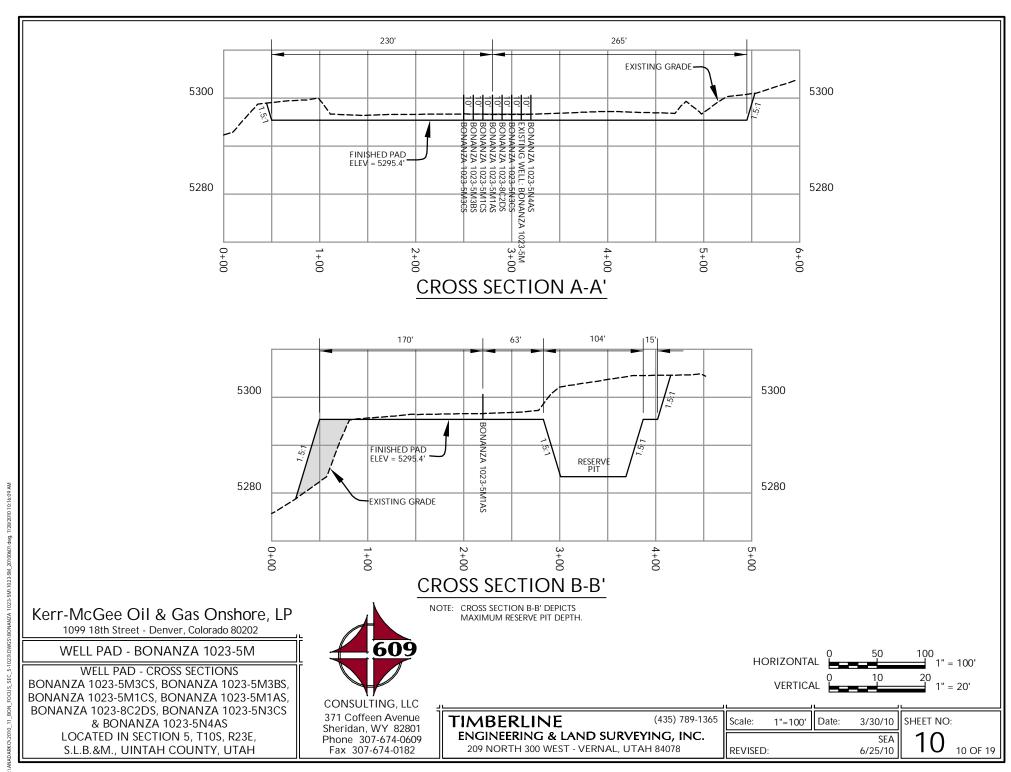
209 NORTH 300 WEST - VERNAL, UTAH 84078

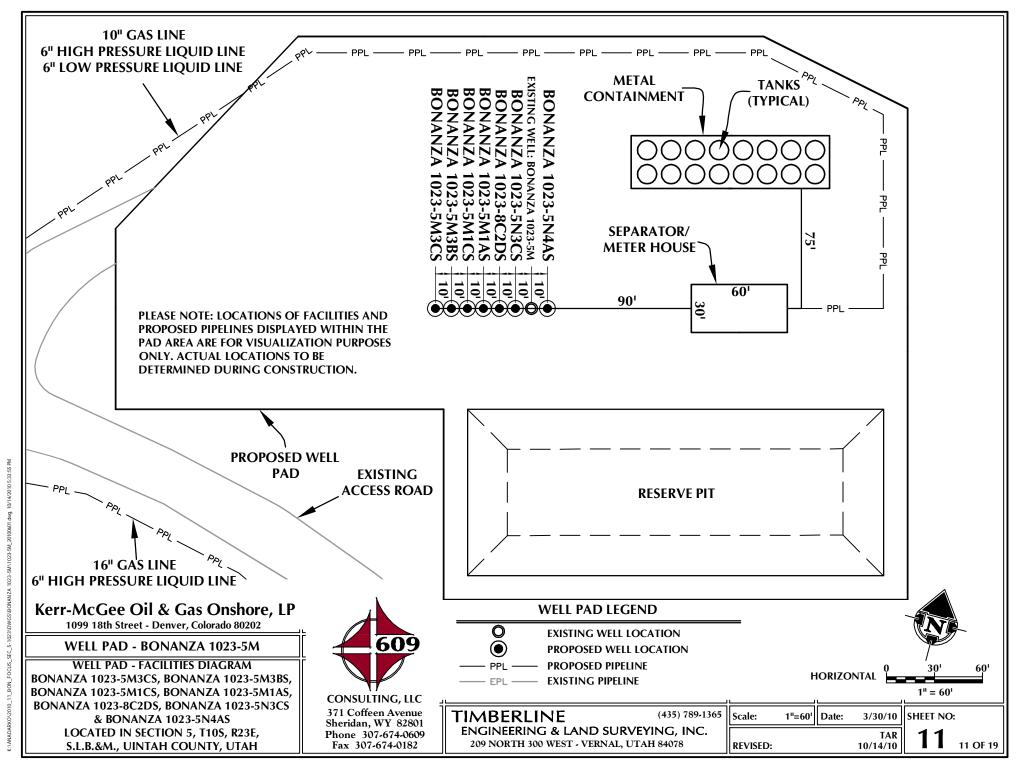
REVISED:

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9 OF 19





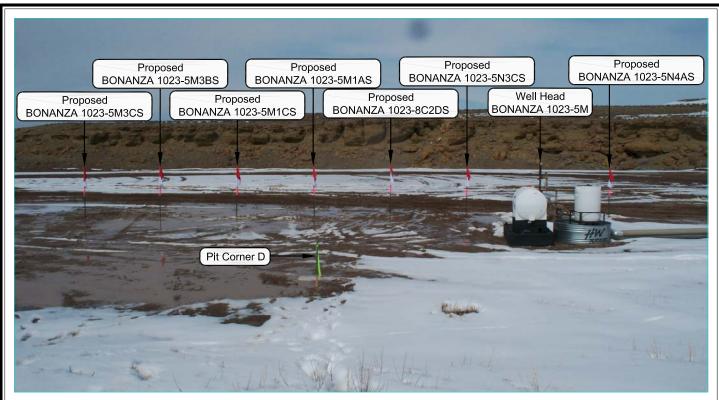


PHOTO VIEW: FROM PIT CORNER D TO LOCATION STAKE





PHOTO VIEW: FROM EXISTING ACCESS ROAD

CAMERA ANGLE: NORTHEASTERLY

Kerr-McGee Oil & Gas Onshore, LP 1099 18th Street - Denver, Colorado 80202

WELL PAD - BONANZA 1023-5M

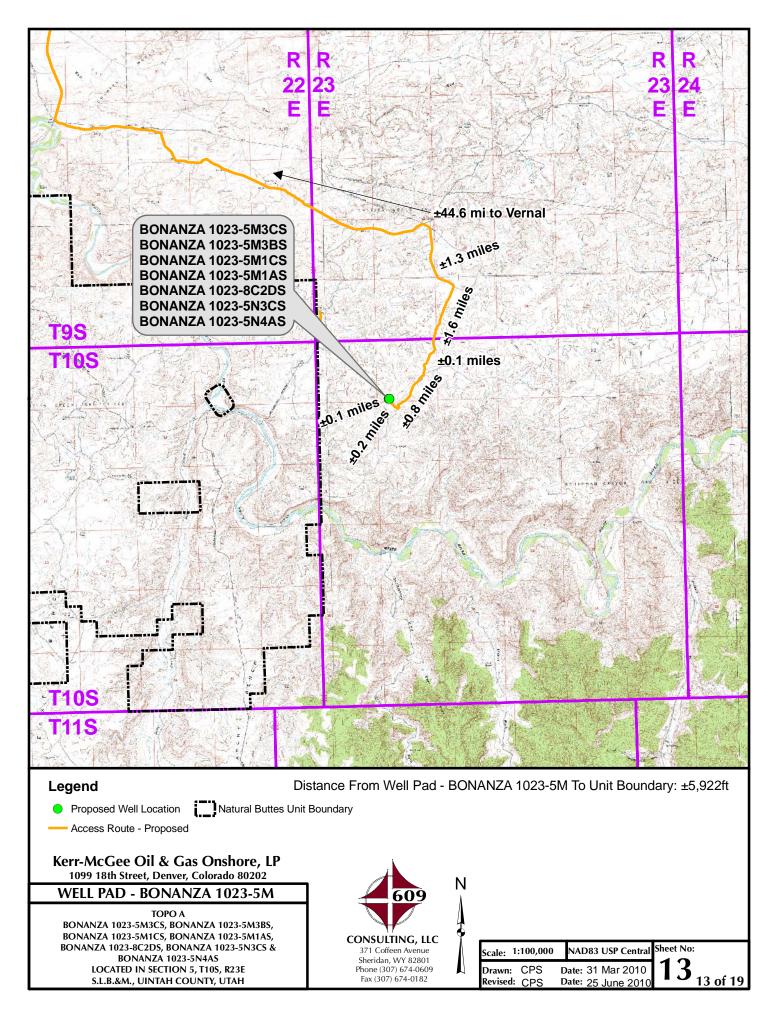
LOCATION PHOTOS
BONANZA 1023-5M3CS, BONANZA 1023-5M3BS,
BONANZA 1023-5M1CS, BONANZA 1023-5M1AS,
BONANZA 1023-8C2DS, BONANZA 1023-5N3CS &
BONANZA 1023-5N4AS
LOCATED IN SECTION 5, T10S, R23E,
S.L.B.&M., UINTAH COUNTY, UTAH.

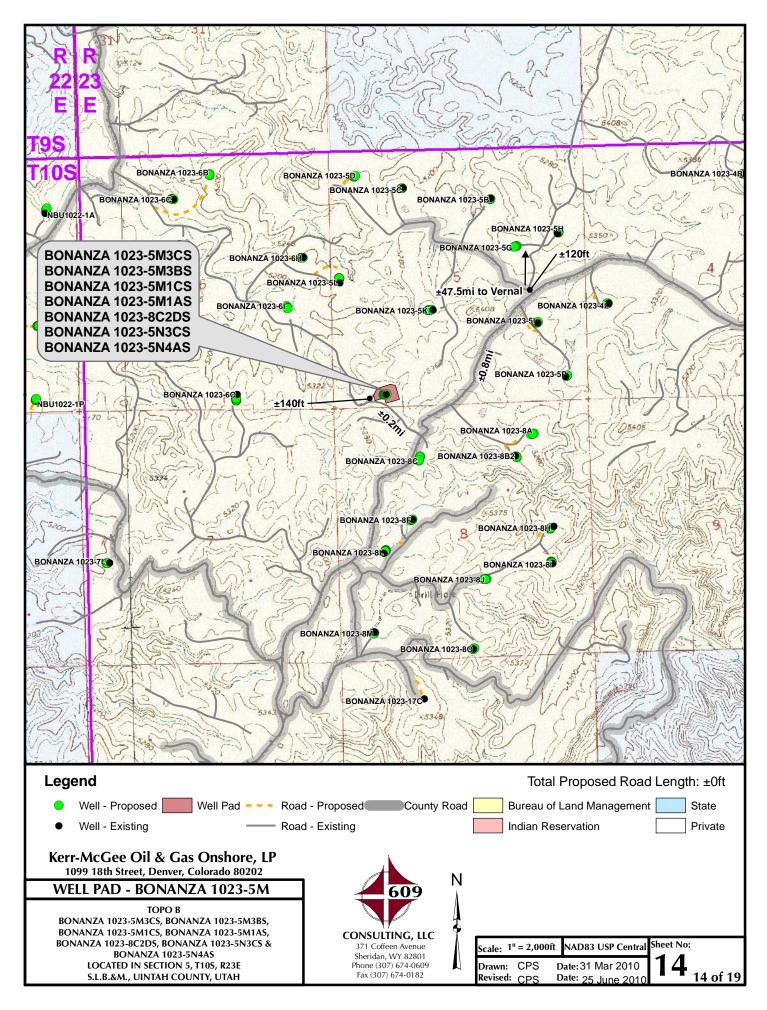


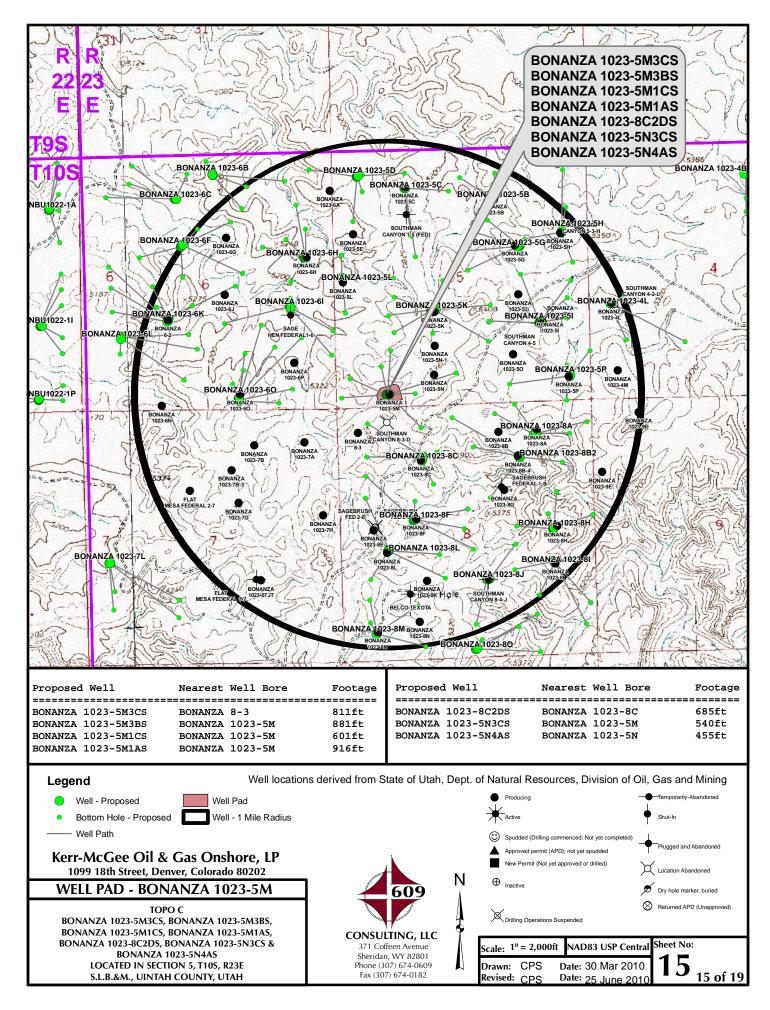
CONSULTING, LLC 371 Coffeen Avenue

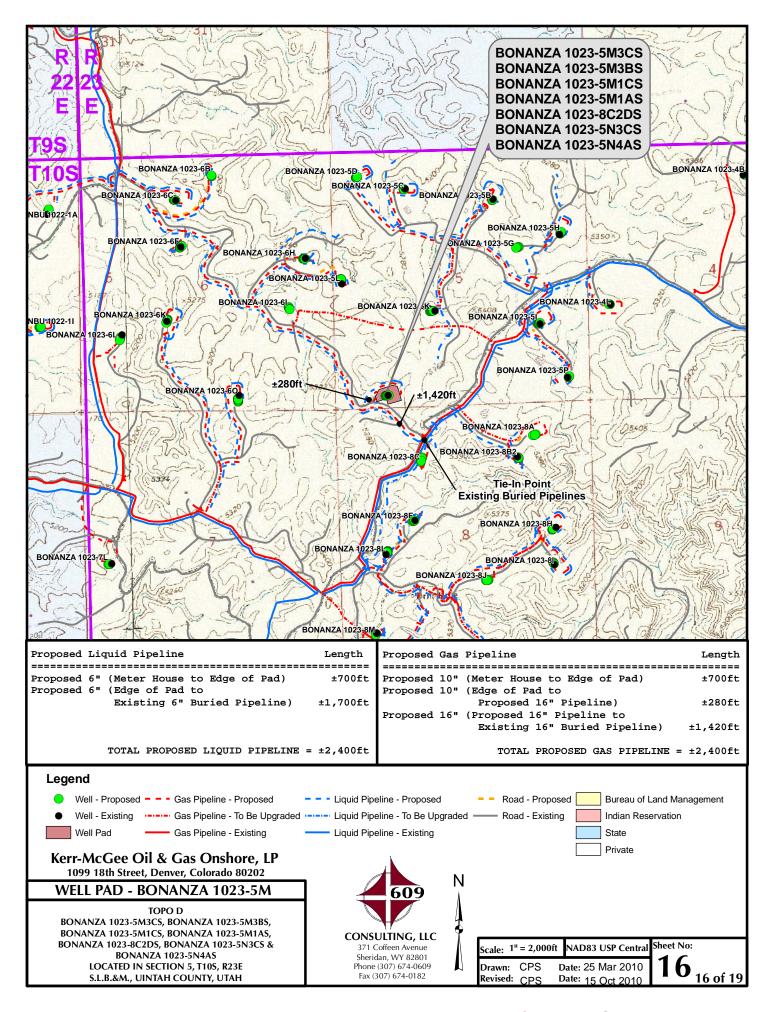
371 Coffeen Avenue Sheridan WY 82801 Phone 307-674-0609 Fax 307-674-0182

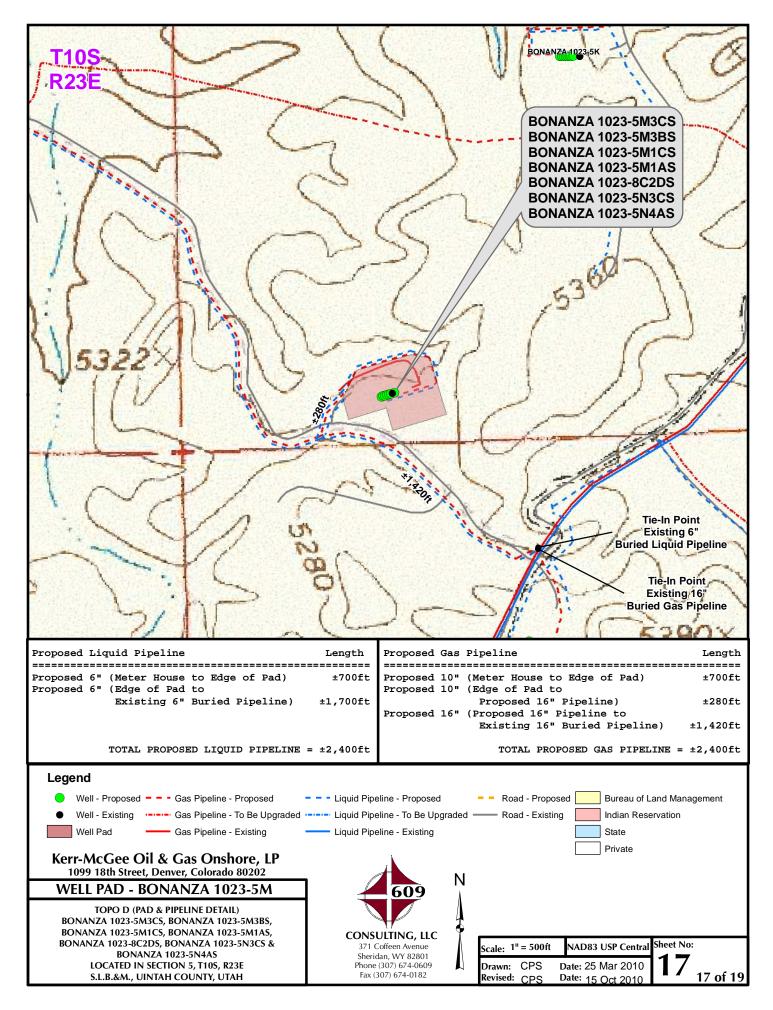
_			
Ī	TIMBERLIN	JE (4	35) 789-1365
		& LAND SURVEYING WEST - VERNAL, UTAH 84	,
	209 NORTH 300	WEST - VERNAL, UTAH 64	070
	DATE PHOTOS TAKEN: 03-10-10	PHOTOS TAKEN BY: D.J.S.	SHEET NO:
	DATE DRAWN: 03-12-10	DRAWN BY: E.M.S.	12
	Date Last Revised:		12 OF 10

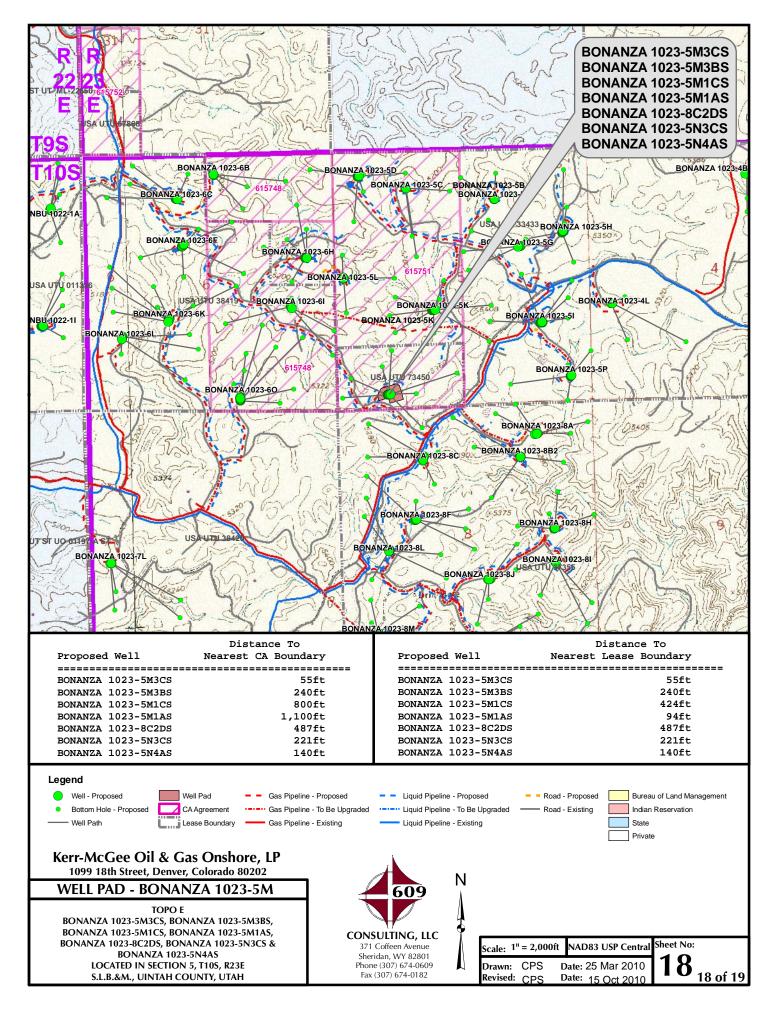












Kerr-McGee Oil & Gas Onshore, LP WELL PAD – BONANZA 1023-5M WELLS – BONANZA 1023-5M3CS, BONANZA 1023-5M3BS, BONANZA 1023-5M1CS, BONANZA 1023-5M1AS, BONANZA 1023-8C2DS, BONANZA 1023-5N3CS & BONANZA 1023-5N4AS Section 5, T10S, R23E, S.L.B.&M.

From the intersection of U.S. Highway 40 and 500 East Street in Vernal, Utah proceed in an easterly then southerly direction along U.S. Highway 40 approximately 3.3 miles to the junction of State Highway 45; exit right and proceed in a southerly direction along State Highway 45 approximately 20.2 miles to the junction of the Glen Bench Road (County B Road 3260). Exit right and proceed in a southwesterly direction along the Glen Bench Road approximately 14.4 miles to the intersection of the Chipeta Wells Road (County B Road 3410) which road intersection is approximately 400 feet northeast of the Mountain Fuel Bridge, at the White River. Exit left and proceed in a southeasterly direction along the Chipeta Wells Road approximately 6.7 miles to a Class D County Road to the right. Exit right and proceed in a southeasterly then southerly direction along the Class D Road approximately 1.3 miles to a second Class D County Road to the right. Exit right and proceed in a southwesterly direction along second Class D Road approximately 1.6 miles to a third Class D County Road to the left. Exit left and proceed in a southeasterly direction along third Class D Road approximately 120 feet to the junction of County B Road 3420. Exit right and proceed in a southwesterly direction along County B Road 3420 approximately 0.8 miles to a Class D County Road to the right. Exit right and proceed in a northwesterly direction along Class D Road approximately 0.2 miles to a service road to the right. Exit right and proceed in a northeasterly direction along service road approximately 140 feet to the proposed well pad.

Total distance from Vernal, Utah to the proposed well location is approximately 48.5 miles in a southerly direction.

SHEET 19 OF 19

RECEIVED: October 17, 2011



ANADARKO PETROLEUM CORP.

UINTAH COUNTY, UTAH (nad 27) Bonanza 1023-5M PAD BONANZA 1023-5N4AS

BONANZA 1023-5N4AS

Plan: PLAN #1 4-27-10 RHS

Standard Planning Report

27 April, 2010



RECEIVED: October 17, 2011

Anadarko Petroleum Corporation

LE G E N D

Bonanza 1023-5M EXISTING, Bonanza 1023-5M EXISTING, Bonanza 1023-5M EXISTING V0
BONANZA 1023-5M1 AS, BONANZA 1023-5M1 AS, PLAN #1 4-27-10 RHS V0
BONANZA 1023-5M1CS, BONANZA 1023-5M1CS, PLAN #1 4-27-10 RHS V0
BONANZA 1023-5M3CS, BONANZA 1023-5MSS, PLAN #1 4-27-10 RHS V0
BONANZA 1023-5M3CS, BONANZA 1023-5MSS, PLAN #1 4-27-10 RHS V0
BONANZA 1023-5M3CS, BONANZA 1023-5MSCS, PLAN #1 4-27-10 RHS V0
BONANZA 1023-5M3CS, BONANZA 1023-5MSCS, PLAN #1 4-27-10 RHS V0
BONANZA 1023-5M3CS, BONANZA 1023-5MSCS, PLAN #1 4-27-10 RHS V0
PLAN #1 4-27-10 RHS

F	ORMATION	N TOP DETAILS	
TVDPath	MDPath	Formation	
1211.00	1241.00	GREEN RIVER	
4181.00	4401.55	WASATCH	
7216.00	7454.91	MESAVERDE	

CASING DETAILS												
TVD 1970.00	MD 2048.71	Name 8 5/8"										

Project: UINTAH COUNTY, UTAH (nad 27) Site: Bonanza 1023-5M PAD

Site: Bonanza 1023-5M PAD
Well: BONANZA 1023-5N4AS
Wellbore: BONANZA 1023-5N4AS
Section: SECTION 5 T10S R23E
SHL: 220 FSL 1060 FWL
Design: PLAN #1 4-27-10 RHS
Latitude: 39° 58' 16.817 N

Longitude: 109° 21' 20.372 W GL: 5295.00

KB: WELL @ 5309.00ft (Original Well Elev)





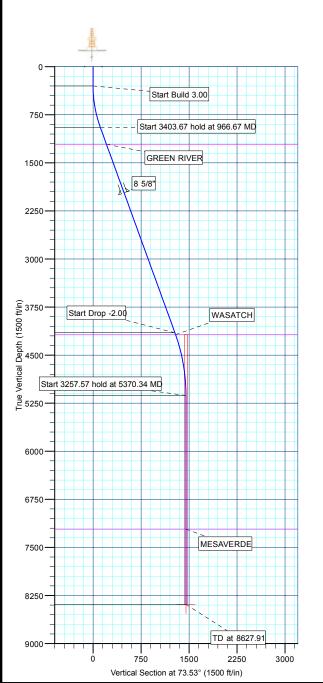
Azimuths to True North Magnetic North: 11.18°

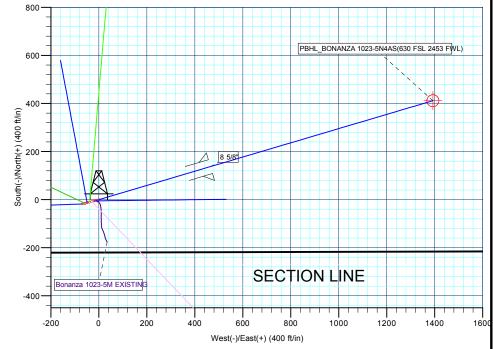
> Magnetic Field Strength: 52459.5snT Dip Angle: 65.92° Date: 4/27/2010 Model: BGGM2009

					SE	CTION E	ETAILS		
MD 0.00	Inc 0.00	Azi 0.00	TVD 0.00	+N/-S 0.00	+E/-W 0.00	DLeg 0.00	TFace 0.00	VSec 0.00	Annotation
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	Start Build 3.00
966.67 4370.34	20.00 20.00	73.53 73.53	953.21 4151.61	32.65 362.63	110.45 1226.83	3.00 0.00	73.53 0.00	115.18 1279.30	Start 3403.67 hold at 966.67 MD Start Drop -2.00
5370.34 8627.91	0.00	0.00	5131.43 8389.00		1392.51 1392.51	2.00		1452.07 1452.07	Start 3257.57 hold at 5370.34 MD TD at 8627.91
0027.01	3.00	5.00	5555.00			3.00	3.00	02.01	

	WELLB	ORE TARGE	T DETAILS (M.	AP CO-ORDINATES	AND LAT/LONG)	
Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
PBHL	8389.00	411.61	1392.51	39° 58' 20.885 N	109° 21' 2.484 W	Circle (Radius: 25.00)

			WELL DETAILS:	BONANZA 1023-5N	I4AS	
+N/-S 0.00	+E/-W 0.00	Northing 14519855.21	Ground Le Easting 2101131.68	evel: 5295.00 Latittude 39° 58' 16.817 N	Longitude 109° 21' 20.372 W	Slot





Plan: PLAN #1 4-27-10 RHS (BONANZA 1023-5N4AS/BONANZA 1023-5N4AS)

Created By: Robert H. Scott

14:57, April 27 2010



Weatherford International Ltd.

Planning Report



Database: EDM 2003.21 Single User Db Company: ANADARKO PETROLEUM CORP. Project:

UINTAH COUNTY, UTAH (nad 27)

Bonanza 1023-5M PAD Site: Well: BONANZA 1023-5N4AS Wellbore: BONANZA 1023-5N4AS Design: PLAN #1 4-27-10 RHS

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well BONANZA 1023-5N4AS

WELL @ 5309.00ft (Original Well Elev) WELL @ 5309.00ft (Original Well Elev)

Minimum Curvature

Project UINTAH COUNTY, UTAH (nad 27),

Map System: Universal Transverse Mercator (US Survey Fee System Datum: Mean Sea Level

NAD 1927 (NADCON CONUS) Geo Datum: Zone 12N (114 W to 108 W) Map Zone:

Bonanza 1023-5M PAD, SECTION 5 T10S R23E Site

Northing: 14,519,855.21 ft Site Position: Latitude: 39° 58' 16.817 N From: Lat/Long Easting: 2,101,131.68ft Longitude: 109° 21' 20.372 W **Position Uncertainty:** 0.00 ft Slot Radius: **Grid Convergence:** 1.06°

Well BONANZA 1023-5N4AS

Well Position +N/-S 0.00 ft Northing: 14,519,855.21 ft Latitude: 39° 58' 16.817 N +E/-W 0.00 ft Easting: 2,101,131.68 ft Longitude: 109° 21' 20.372 W

Position Uncertainty 0.00 ft Wellhead Elevation: ft Ground Level: 5,295.00 ft

Wellbore BONANZA 1023-5N4AS

Magnetics Model Name Sample Date Declination **Dip Angle** Field Strength (°) (nT) (°) BGGM2009 4/27/2010 11.18 65.92 52.459

PLAN #1 4-27-10 RHS Design

Audit Notes:

Version: Phase: **PLAN** Tie On Depth: 0.00

Vertical Section: Depth From (TVD) +N/-S +E/-W Direction (ft) (ft) (ft) (°) 73.53 0.00 0.00 0.00

Plan Section	s									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	
966.67	20.00	73.53	953.21	32.65	110.45	3.00	3.00	0.00	73.53	
4,370.34	20.00	73.53	4,151.61	362.63	1,226.83	0.00	0.00	0.00	0.00	
5,370.34	0.00	0.00	5,131.43	411.61	1,392.51	2.00	-2.00	0.00	180.00	
8,627.91	0.00	0.00	8,389.00	411.61	1,392.51	0.00	0.00	0.00	0.00 P	BHL_BONANZA 1



Weatherford International Ltd.

Planning Report



Database: Company: Project: Site:

Well:

Wellbore:

EDM 2003.21 Single User Db ANADARKO PETROLEUM CORP. UINTAH COUNTY, UTAH (nad 27)

Bonanza 1023-5M PAD BONANZA 1023-5N4AS BONANZA 1023-5N4AS PLAN #1 4-27-10 RHS Local Co-ordinate Reference: TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well BONANZA 1023-5N4AS

WELL @ 5309.00ft (Original Well Elev) WELL @ 5309.00ft (Original Well Elev)

True

Minimum Curvature

Design:		PLAN #1 4-2	27-10 RHS							
Planned Su	ırvey									
De	sured epth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
Sta	art Build	3.00								
	300.00 400.00	0.00 3.00	0.00 73.53	300.00 399.95	0.00 0.74	0.00 2.51	0.00 2.62	0.00 3.00	0.00 3.00	0.00 0.00
	500.00 600.00 700.00 800.00 900.00	6.00 9.00 12.00 15.00 18.00	73.53 73.53 73.53 73.53 73.53	499.63 598.77 697.08 794.31 890.18	2.97 6.67 11.83 18.45 26.50	10.03 22.55 40.02 62.41 89.64	10.46 23.51 41.74 65.08 93.48	3.00 3.00 3.00 3.00 3.00	3.00 3.00 3.00 3.00 3.00	0.00 0.00 0.00 0.00 0.00
		67 hold at 966								
1,i 1,i 1,i	966.67 000.00 100.00 200.00	20.00 20.00 20.00 20.00	73.53 73.53 73.53 73.53	953.21 984.53 1,078.50 1,172.47	32.65 35.88 45.58 55.27	110.45 121.39 154.19 186.99	115.18 126.58 160.78 194.98	3.00 0.00 0.00 0.00	3.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00
	REEN RI\ 241.00	ZO.00	73.53	1,211.00	59.25	200.43	209.01	0.00	0.00	0.00
1,; 1,; 1,;	300.00 400.00 500.00 600.00 700.00	20.00 20.00 20.00 20.00 20.00 20.00	73.53 73.53 73.53 73.53 73.53 73.53	1,266.44 1,360.41 1,454.38 1,548.35 1,642.32	64.97 74.66 84.36 94.05 103.75	219.78 252.58 285.38 318.18 350.98	229.19 263.39 297.59 331.79 365.99	0.00 0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00
1, 2,	800.00 900.00 000.00	20.00 20.00 20.00	73.53 73.53 73.53	1,736.29 1,830.26 1,924.23	113.44 123.14 132.83	383.78 416.58 449.38	400.20 434.40 468.60	0.00 0.00 0.00	0.00 0.00 0.00	0.00 0.00 0.00
8 5	048.71	20.00	73.53	1,970.00	137.55	465.36	485.26	0.00	0.00	0.00
	100.00	20.00	73.53	2,018.20	142.53	482.18	502.80	0.00	0.00	0.00
2,; 2,; 2,;	200.00 300.00 400.00 500.00 600.00	20.00 20.00 20.00 20.00 20.00	73.53 73.53 73.53 73.53 73.53	2,112.16 2,206.13 2,300.10 2,394.07 2,488.04	152.22 161.92 171.61 181.31 191.00	514.98 547.78 580.58 613.37 646.17	537.00 571.21 605.41 639.61 673.81	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00
2,; 2,; 3,;	700.00 800.00 900.00 000.00 100.00	20.00 20.00 20.00 20.00 20.00	73.53 73.53 73.53 73.53 73.53	2,582.01 2,675.98 2,769.95 2,863.92 2,957.89	200.70 210.39 220.09 229.78 239.48	678.97 711.77 744.57 777.37 810.17	708.01 742.22 776.42 810.62 844.82	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00
3,; 3,; 3,;	200.00 300.00 400.00 500.00 600.00	20.00 20.00 20.00 20.00 20.00	73.53 73.53 73.53 73.53 73.53	3,051.86 3,145.83 3,239.80 3,333.76 3,427.73	249.17 258.87 268.56 278.26 287.95	842.97 875.77 908.57 941.37 974.17	879.02 913.23 947.43 981.63 1,015.83	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00
3,; 3,; 4,;	700.00 800.00 900.00 000.00 100.00	20.00 20.00 20.00 20.00 20.00	73.53 73.53 73.53 73.53 73.53	3,521.70 3,615.67 3,709.64 3,803.61 3,897.58	297.65 307.34 317.04 326.73 336.43	1,006.96 1,039.76 1,072.56 1,105.36 1,138.16	1,050.03 1,084.24 1,118.44 1,152.64 1,186.84	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00
	200.00 300.00	20.00 20.00	73.53 73.53	3,991.55 4,085.52	346.12 355.82	1,170.96 1,203.76	1,221.04 1,255.25	0.00 0.00	0.00 0.00	0.00 0.00
	art Drop									
4,	370.34 400.00	20.00 19.41	73.53 73.53	4,151.61 4,179.54	362.63 365.47	1,226.83 1,236.42	1,279.30 1,289.30	0.00 2.00	0.00 -2.00	0.00 0.00
	401.55	19.38	73.53	4,181.00	365.62	1,236.91	1,289.82	2.00	-2.00	0.00



Weatherford International Ltd.

Planning Report



Database: Company: Project: Site:

Planned Survey

Well:

Wellbore:

Design:

EDM 2003.21 Single User Db ANADARKO PETROLEUM CORP. UINTAH COUNTY, UTAH (nad 27)

Bonanza 1023-5M PAD BONANZA 1023-5N4AS BONANZA 1023-5N4AS PLAN #1 4-27-10 RHS

0.00

0.00

8.389.00

8,627.91

Local Co-ordinate Reference: TVD Reference: **MD Reference:**

North Reference: **Survey Calculation Method:** Well BONANZA 1023-5N4AS WELL @ 5309.00ft (Original Well Elev) WELL @ 5309.00ft (Original Well Elev)

Minimum Curvature

aililea Gui vey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
4,500.00	17.41	73.53	4,274.42	374.42	1,266.70	1,320.88	2.00	-2.00	0.00
4,600.00	15.41	73.53	4,370.34	382.43	1,293.78	1,349.12	2.00	-2.00	0.00
4,700.00	13.41	73.53	4,467.19	389.48	1,317.64	1,374.00	2.00	-2.00	0.00
4,800.00	11.41	73.53	4,564.85	395.57	1,338.25	1,395.48	2.00	-2.00	0.00
4,900.00	9.41	73.53	4,663.20	400.69	1,355.57	1,413.55	2.00	-2.00	0.00
5,000.00	7.41	73.53	4,762.12	404.83	1,369.59	1,428.17	2.00	-2.00	0.00
5,100.00	5.41	73.53	4,861.49	408.00	1,380.29	1,439.32	2.00	-2.00	0.00
5,200.00	3.41	73.53	4,961.19	410.17	1,387.66	1,447.01	2.00	-2.00	0.00
5,300.00	1.41	73.53	5,061.10	411.36	1,391.68	1,451.21	2.00	-2.00	0.00
Start 3257	.57 hold at 537	70.34 MD							
E 270 24	0.00	0.00	E 404 40	444.04	4 200 54	4 450 07	2.00	2.00	404 55

1,392.51

1,452.07

411.61

0.00

0.00

0.00



Weatherford International Ltd.

Planning Report



Database: Company: Project: Site: EDM 2003.21 Single User Db ANADARKO PETROLEUM CORP. UINTAH COUNTY, UTAH (nad 27)

 Site:
 Bonanza 1023-5M PAD

 Well:
 BONANZA 1023-5N4AS

 Wellbore:
 BONANZA 1023-5N4AS

 Design:
 PLAN #1 4-27-10 RHS

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well BONANZA 1023-5N4AS

WELL @ 5309.00ft (Original Well Elev) WELL @ 5309.00ft (Original Well Elev)

True

Minimum Curvature

Design Targets

Target Name

- hit/miss target Dip Angle - Shape (°)

(°)

Dip Dir. TVD (ft)

0.00 8,389.00

+N/-S (ft) 411.61 +E/-W (ft)

1,392.51

Name

Northing (ft) 14,520,292.42

Lithology

Easting (ft)

2,102,516.36

Latitude

39° 58' 20.885 N

Longitude

109° 21' 2.484 W

PBHL_BONANZA 102

plan hits target center
Circle (radius 25.00)

Measured

Casing Points

Measured Vertical Depth (ft) (ft)

2,048.71 1,970.00 8 5/8"

Casing Diameter

(in)

aiD

(°)

8.62

Hole Diameter (in)

Dip Direction

(°)

(in) 11.00

Formations

 Depth (ft)
 Depth (ft)
 Name

 1,241.00
 1,211.00
 GREEN RIVER

 4,401.55
 4,181.00
 WASATCH

 7,454.91
 7,216.00
 MESAVERDE

Vertical

Plan Annotations

UIIS					
Measured Depth (ft)	Vertical Depth (ft)	Local Coor +N/-S (ft)	dinates +E/-W (ft)	Comment	
300.00	300.00	0.00	0.00	Start Build 3.00	
966.67	953.21	32.65	110.45	Start 3403.67 hold at 966.67 MD	
4,370.34	4,151.61	362.63	1,226.83	Start Drop -2.00	
5,370.34	5,131.43	411.61	1,392.51	Start 3257.57 hold at 5370.34 MD	
8,627.91	8,389.00	411.61	1,392.51	TD at 8627.91	
	(ft) 300.00 966.67 4,370.34 5,370.34	Measured Depth (ft) Vertical Depth (ft) 300.00 300.00 966.67 953.21 4,370.34 4,151.61 5,370.34 5,131.43	Measured Depth (ft) Vertical Depth +N/-S (ft) Local Coor +N/-S (ft) 300.00 300.00 0.00 966.67 953.21 32.65 4,370.34 4,151.61 362.63 5,370.34 5,131.43 411.61	Measured Depth (ft) Vertical Depth (ft) Local Coordinates +E/-W (ft) 300.00 300.00 0.00 0.00 966.67 953.21 32.65 110.45 4,370.34 4,151.61 362.63 1,226.83 5,370.34 5,131.43 411.61 1,392.51	Measured Depth (ft) Vertical Depth (ft) Local Coordinates + E/-W (ft) Comment 300.00 300.00 0.00 0.00 Start Build 3.00 966.67 953.21 32.65 110.45 Start 3403.67 hold at 966.67 MD 4,370.34 4,151.61 362.63 1,226.83 Start Drop -2.00 5,370.34 5,131.43 411.61 1,392.51 Start 3257.57 hold at 5370.34 MD



ANADARKO PETROLEUM CORP.

UINTAH COUNTY, UTAH (nad 27) Bonanza 1023-5M PAD BONANZA 1023-5N4AS

BONANZA 1023-5N4AS PLAN #1 4-27-10 RHS

Anticollision Report

27 April, 2010





Weatherford International Ltd.

Anticollision Report

TVD Reference:

MD Reference:



Company: ANADARKO PETROLEUM CORP.
Project: UINTAH COUNTY, UTAH (nad 27)

Project: UINTAH COUNTY, UTAH (nad 27 Bonanza 1023-5M PAD

Site Error: 0.00ft

Reference Well: BONANZA 1023-5N4AS

Well Error: 0.00ft

Reference Wellbore BONANZA 1023-5N4AS

Reference Design: PLAN #1 4-27-10 RHS

Local Co-ordinate Reference:

Well BONANZA 1023-5N4AS

WELL @ 5309.00ft (Original Well Elev)
WELL @ 5309.00ft (Original Well Elev)

North Reference: True

Survey Calculation Method: Minimum Curvature

Output errors are at 2.00 sigma

Database: EDM 2003.21 Single User Db

Offset TVD Reference: Offset Datum

Reference PLAN #1 4-27-10 RHS

Filter type: NO GLOBAL FILTER: Using user defined selection & filtering criteria

Interpolation Method: Stations Error Model: ISCWSA

Depth Range:0.00 to 20,000.00ftScan Method:Closest Approach 3DResults Limited by:Maximum center-center distance of 10,000.00ftError Surface:Elliptical Conic

Warning Levels Evaluated at: 2.00 Sigma

Survey Tool Program Date 4/27/2010

From To

(ft) (ft) Survey (Wellbore) Tool Name Description

0.00 8,627.91 PLAN #1 4-27-10 RHS (BONANZA 1023-5 MWD MWD - Standard

Gummary						
Site Name Offset Well - Wellbore - Design	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Dista Between Centres (ft)	nce Between Ellipses (ft)	Separation Factor	Warning
Bonanza 1023-5M PAD						
Bonanza 1023-5M EXISTING - Bonanza 1023-5M EXIST	300.00	286.00	10.13	8.96	8.642	CC, ES
Bonanza 1023-5M EXISTING - Bonanza 1023-5M EXIST	400.00	385.95	12.75	11.09	7.686	SF
BONANZA 1023-5M1AS - BONANZA 1023-5M1AS - PL/	300.00	300.00	40.00	38.90	36.614	CC, ES
BONANZA 1023-5M1AS - BONANZA 1023-5M1AS - PL/	500.00	500.33	48.61	46.61	24.301	SF
BONANZA 1023-5M1CS - BONANZA 1023-5M1CS - PL	300.00	300.00	50.13	49.04	45.891	CC, ES
BONANZA 1023-5M1CS - BONANZA 1023-5M1CS - PL	600.00	597.28	75.42	72.89	29.806	SF
BONANZA 1023-5M3BS - BONANZA 1023-5M3BS - PL/	300.00	300.00	59.99	58.90	54.921	CC, ES
BONANZA 1023-5M3BS - BONANZA 1023-5M3BS - PL/	600.00	595.10	92.64	90.18	37.530	SF
BONANZA 1023-5M3CS - BONANZA 1023-5M3CS - PL	300.00	300.00	69.86	68.76	63.950	CC, ES
BONANZA 1023-5M3CS - BONANZA 1023-5M3CS - PL	600.00	593.67	104.68	102.22	42.662	SF
BONANZA 1023-5N3CS - BONANZA 1023-5N3CS - PL/	520.85	522.66	9.50	7.32	4.371	CC, ES
BONANZA 1023-5N3CS - BONANZA 1023-5N3CS - PL/	600.00	601.71	11.26	8.56		
BONANZA 1023-8C2DS - BONANZA 1023-8C2DS - PL/	300.00	300.00	30.13	29.04	27.584	•
BONANZA 1023-8C2DS - BONANZA 1023-8C2DS - PL/	500.00	500.44	37.90	35.95	19.401	SF

Offset D	esign	Bonan	za 1023-	5M PAD -	Bonanza	a 1023-5N	EXISTING -	Bonanza	1023-5M	EXISTIN	G - Bonan	za 1023	Offset Site Error	0.00 ft
Survey Pro Refer	_	-NS-GYRO-N Offs		Semi Major	Axis				Dista	ance			Offset Well Error	0.00 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbo +N/-S (ft)	re Centre +E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warni	ng
0.00	0.00	0.00	0.00	0.00	0.00	-104.57	-2.55	-9.81	17.28					
100.00	100.00	86.00	86.00	0.10	0.11	-104.57	-2.55	-9.81	10.13	9.92	0.21	48.072		
200.00	200.00	186.00	186.00	0.32	0.36	-104.57	-2.55	-9.81	10.13	9.45	0.68	14.851		
300.00	300.00	286.00	286.00	0.55	0.63	-104.57	-2.55	-9.81	10.13	8.96	1.17	8.642 (CC, ES	
400.00	399.95	385.95	385.95	0.77	0.89	-178.49	-2.55	-9.81	12.75	11.09	1.66	7.686 9	SF	
500.00	499.63	485.68	485.68	1.00	1.06	-179.43	-2.65	-9.69	20.50	18.46	2.04	10.031		
600.00	598.77	584.78	584.78	1.27	1.22	179.95	-2.83	-9.48	33.41	30.98	2.43	13.773		
700.00	697.08	683.10	683.10	1.62	1.36	179.80	-2.97	-9.42	51.61	48.81	2.80	18.427		
800.00	794.31	780.28	780.28	2.04	1.44	179.53	-3.37	-9.29	74.94	71.83	3.12	24.053		
900.00	890.18	876.20	876.20	2.56	1.54	179.41	-3.77	-9.19	103.36	99.91	3.46	29.907		
966.67	953.21	939.28	939.27	2.97	1.62	179.37	-4.03	-9.09	125.04	121.34	3.71	33.732		
1,000.00	984.53	970.61	970.61	3.19	1.67	179.37	-4.15	-9.03	136.43	132.58	3.85	35.459		
1,100.00	1,078.50	1,064.34	1,064.34	3.85	1.82	179.35	-4.53	-8.91	170.62	166.34	4.28	39.834		
1,200.00	1,172.47	1,158.40	1,158.39	4.53	1.99	179.35	-4.93	-8.91	204.93	200.19	4.74	43.222		



Weatherford International Ltd.

Anticollision Report



Company: ANADARKO PETROLEUM CORP.

Project: UINTAH COUNTY, UTAH (nad 27) Bonanza 1023-5M PAD Reference Site:

Site Error: 0.00ft

Reference Well: BONANZA 1023-5N4AS

Well Error: 0.00ft

Reference Wellbore BONANZA 1023-5N4AS

Reference Design: PLAN #1 4-27-10 RHS

Local Co-ordinate Reference:

Well BONANZA 1023-5N4AS **TVD Reference:**

WELL @ 5309.00ft (Original Well Elev) MD Reference: WELL @ 5309.00ft (Original Well Elev)

North Reference: True

Survey Calculation Method: Minimum Curvature

2.00 sigma Output errors are at

Database: EDM 2003.21 Single User Db

Offset TVD Reference: Offset Datum

Refer		-NS-GYRO-M Offse		Semi Major	Avie				Dista	anco			Offset Well Error:	0.00 ft
leasured Depth		Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbor	e Centre +E/-W		Between Ellipses	Minimum Separation	Separation Factor	Warning	
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)			
1,300.00	1,266.44	1,252.60	1,252.59	5.22	2.17	179.34	-5.30	-8.75	239.10	233.87	5.22	45.768		
1,400.00	1,360.41	1,346.46	1,346.45	5.91	2.37	179.33	-5.68	-8.59	273.25	267.53	5.72			
1,500.00	1,454.38	1,440.21	1,440.20	6.61	2.58	179.32	-6.07	-8.49	307.47	301.24	6.23	49.350		
1,600.00	1,548.35	1,535.19	1,535.18	7.31	2.79	179.31	-6.50	-8.38	341.69	334.95	6.75	50.647		
1,700.00	1,642.32	1,632.89	1,632.87	8.01	3.01	179.23	-7.14	-7.45	375.22	367.94	7.28	51.561		
1,800.00	1,736.29	1,730.19	1,730.15	8.71	3.24	179.07	-8.12	-5.43	407.83	400.01	7.81	52.186		
1,900.00	1,830.26	1,824.44	1,824.36	9.42	3.47	178.91	-9.20	-3.21	440.23	431.88	8.35	52.710		
2,000.00	1,924.23	1,917.90	1,917.79	10.13	3.70	178.75	-10.46	-1.12	472.80	463.90	8.89	53.160		
2,100.00	2,018.20	2,010.92	2,010.78	10.83	3.93	178.59	-11.97	0.79	505.62	496.18	9.44	53.564		
2,200.00	2,112.16	2,103.31	2,103.14	11.54	4.16	178.44	-13.73	2.43	538.77	528.78	9.99	53.950		
2,300.00	2,206.13	2,196.65	2,196.45	12.25	4.39	178.28	-15.69	3.89	572.17	561.63	10.54	54.301		
2,400.00	2,300.10	2,288.19	2,287.96	12.96	4.62	178.14	-17.76	5.08	605.85	594.77	11.08	54.669		
2,500.00	2,394.07	2,380.70	2,380.43	13.67	4.85	178.01	-20.00	5.99	639.88	628.25	11.63	55.028		
2,600.00	2,488.04	2,472.06	2,471.76	14.38	5.07	177.88	-22.40	6.67	674.18	662.01	12.17	55.400 55.740		
2,700.00	2,582.01 2,675.98	2,565.68 2,658.32	2,565.34	15.09 15.80	5.30	177.74 177.60	-25.20 28.11	7.19 7.78	708.75	696.04	12.72 13.26	55.740 56.054		
2,800.00	2,075.98	2,000.32	2,657.93	15.00	5.53	177.60	-28.11	1.18	743.31	730.05	13.26	56.054		
2,900.00	2,769.95	2,750.35	2,749.89	16.51	5.75	177.43	-31.61	8.30	778.13	764.32	13.81	56.360		
3,000.00	2,863.92	2,843.49	2,842.96	17.22	5.98	177.27	-35.24	8.73	813.08	798.72	14.36	56.640		
3,100.00	2,957.89	2,937.15	2,936.55	17.93	6.21	177.12	-38.90	9.14	848.05	833.15	14.91	56.890		
3,200.00	3,051.86	3,030.55	3,029.88	18.64	6.44	176.99	-42.54	9.55	883.04	867.58	15.46	57.120		
3,300.00	3,145.83	3,123.36	3,122.62	19.35	6.67	176.86	-46.17	9.88	918.09	902.08	16.01	57.341		
0 400 00	0.000.00	0.040.40	0.045.00	00.00	0.00	470.75	40.00	10.10	050.00	000.07	40.50			
3,400.00	3,239.80	3,216.18	3,215.36	20.06	6.90	176.75	-49.80	10.13	953.23	936.67	16.56	57.551		
3,500.00	3,333.76	3,309.27	3,308.38	20.77	7.13	176.65	-53.32	10.28	988.44	971.32	17.12	57.752		
3,600.00	3,427.73	3,402.39	3,401.44	21.48	7.36	176.57	-56.66 50.70	10.30	1,023.69	1,006.02	17.67	57.944		
3,700.00 3,800.00	3,521.70 3,615.67	3,497.92 3,593.59	3,496.93 3,592.56	22.19 22.90	7.60 7.84	176.52 176.48	-59.79 -62.52	10.29 10.33	1,058.88 1,093.89	1,040.65 1,075.11	18.23 18.78	58.100 58.240		
3,000.00	3,013.07	3,393.39	3,392.30	22.90	7.04	170.40	-02.52	10.33	1,093.09	1,073.11	10.70	36.240		
3,900.00	3,709.64	3,685.80	3,684.74	23.62	8.07	176.46	-64.93	10.33	1,128.87	1,109.54	19.33	58.398		
4,000.00	3,803.61	3,777.65	3,776.56	24.33	8.29	176.45	-67.32	10.17	1,164.00	1,144.12	19.88	58.557		
4,100.00	3,897.58	3,871.89	3,870.76	25.04	8.53	176.44	-69.77	9.93	1,199.19	1,178.76	20.43	58.693		
4,200.00	3,991.55	3,966.99	3,965.83	25.75	8.77	176.43	-72.26	9.81	1,234.28	1,213.29	20.99	58.809		
4,300.00	4,085.52	4,062.21	4,061.02	26.46	9.01	176.41	-74.75	9.81	1,269.26	1,247.71	21.55	58.902		
4.070.04	4.454.04	4 400 00	4 400 04	00.00	0.40	470.40	70.50	0.00	4 000 70	4 074 05	04.04	50.057		
4,370.34	4,151.61	4,129.26	4,128.04	26.96	9.18	176.40	-76.50	9.88	1,293.79	1,271.85	21.94	58.957		
4,400.00	4,179.54	4,157.60	4,156.37	27.15	9.25	176.41	-77.24 79.72	9.93	1,303.98		22.14	58.902 58.733		
4,500.00 4,600.00	4,274.42 4,370.34	4,253.02 4,348.77	4,251.76	27.68	9.50 9.74	176.43	-79.72 -82.22	10.16 10.40	1,336.12 1,364.94		22.75 23.33	58.733 58.514		
4,600.00	4,370.34	4,348.77 4,443.66	4,347.47 4,442.34	28.15 28.58	9.74	176.43 176.42	-82.22 -84.69	10.40	1,364.94	1,341.61 1,366.57	23.33	58.266		
1,1 30.00	7,707.10	7,770.00	1,772.04	20.50	3.33	110.72	-04.03	10.01	1,000.40	1,000.07	25.00	55.200		
4,800.00	4,564.85	4,537.23	4,535.88	28.95	10.23	176.41	-87.12	10.58	1,412.77	1,388.42	24.36	58.005		
4,900.00	4,663.20	4,633.74	4,632.35	29.27	10.47	176.39	-89.62	10.28	1,431.95	1,407.14	24.82	57.704		
5,000.00	4,762.12	4,735.58	4,734.15	29.55	10.73	176.35	-92.27	10.09	1,447.60	1,422.35	25.25	57.336		
5,100.00	4,861.49	4,837.65	4,836.19	29.77	10.99	176.29	-94.94	10.13	1,459.59	•	25.64	56.922		
5,200.00	4,961.19	4,939.58	4,938.09	29.94	11.26	176.22	-97.59	10.35	1,467.96	1,441.96	26.00	56.466		
E 300 00	5.064.40	5 020 10	5.037.66	20.06	11 50	176 14	100 17	10.60	1 472 72	1 //6 /0	26.20	EE 002		
5,300.00		5,039.19	5,037.66 5,105.14	30.06	11.52	176.14	-100.17	10.69	1,472.72		26.30	55.992 55.655		
5,370.34	5,131.43 5,161.09	5,106.69 5,135.17	5,105.14	30.12 30.15	11.69 11.76	-110.39 -110.42	-101.93 -102.67	10.80 10.81	1,474.10 1,474.36		26.49 26.60	55.655 55.418		
	5,161.09	5,133.17	5,231.69	30.13	12.02	-110.42	-102.07	10.69	1,475.39		27.01	54.614		
5,600.00		5,235.29	5,334.21	30.23	12.02	-110.51	-105.25	10.65	1,476.35		27.44	53.806		
3,000.00	0,001.00	0,000.04	5,55T.E1	00.01	.2.20	0.00	107.00	10.00	., ., 0.00	.,10.01	21.44	55.000		
5,700.00	5,461.09	5,438.54	5,436.87	30.39	12.55	-110.70	-110.60	10.80	1,477.13	1,449.27	27.87	53.009		
5,800.00	5,561.09	5,541.48	5,539.78	30.48	12.82	-110.81	-113.45	11.23	1,477.73	1,449.43	28.30	52.218		
5,900.00	5,661.09	5,644.97	5,643.21	30.56	13.09	-110.93	-116.51	11.96	1,478.12	1,449.38	28.74	51.436		
	5,761.09	5,749.17	5,747.36	30.65	13.37	-111.07	-119.71	13.06	1,478.24		29.18	50.660		
6,100.00	5,861.09	5,851.19	5,849.32	30.74	13.64	-111.20	-122.96	14.44	1,478.12	1,448.50	29.62	49.906		



Weatherford International Ltd.

Anticollision Report

Database:



Company: ANADARKO PETROLEUM CORP.
Project: UINTAH COUNTY, UTAH (nad 27)

Reference Site: Bonanza 1023-5M PAD

Site Error: 0.00ft

Reference Well: BONANZA 1023-5N4AS

Well Error: 0.00ft

Reference Wellbore BONANZA 1023-5N4AS

Reference Design: PLAN #1 4-27-10 RHS

DI AN #4 4 07 40 DUO

Local Co-ordinate Reference:

TVD Reference:

MD Reference:
North Reference:

WELL © 5300 00ft (Original V

WELL @ 5309.00ft (Original Well Elev) WELL @ 5309.00ft (Original Well Elev)

ence: True

Survey Calculation Method: Minimum Curvature

Output errors are at 2.00 sigma

EDM 2003.21 Single User Db

Offset TVD Reference: Offset Datum

Offset D		Bonanz NS-GYRO-N		5M PAD -	Bonanz	a 1023-5M	EXISTING -	Bonanza	1023-5M	EXISTIN	G - Bonan	za 1023	Offset Site Error:	0.00 ft
urvey Pro Refer	•	Offs		Semi Major	Axis				Dista	ince			Offset Well Error:	0.00 ft
leasured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbor +N/-S (ft)	re Centre +E/-W (ft)		Between	Minimum Separation (ft)	Separation Factor	Warning	
6,300.00	6,061.09	6,051.31	6,049.32	30.93	14.17	-111.47	-129.35	17.25	1,477.83	1,447.34	30.49	48.470		
6,400.00	6,161.09	6,151.71	6,149.66	31.02	14.43	-111.61	-132.55	18.69	1,477.67	1,446.74	30.93	47.777		
6,500.00	6,261.09	6,249.79	6,247.68	31.11	14.69	-111.74	-135.72	20.10	1,477.52	1,446.16	31.36	47.110		
6,514.23	6,275.33	6,263.45	6,261.33	31.13	14.72	-111.76	-136.20	20.30	1,477.52	1,446.09	31.42	47.018		
6,600.00	6,361.09	6,345.72	6,343.53	31.21	14.94	-111.89	-139.24	21.41	1,477.62	1,445.83	31.79	46.474		
6,700.00	6,461.09	6,443.27	6,440.99	31.31	15.20	-112.05	-143.22	22.64	1,477.98	1,445.75	32.23	45.851		
6,800.00	6,561.09	6,542.99	6,540.63	31.41	15.47	-112.21	-147.20	23.80	1,478.41	1,445.73	32.68	45.237		
6,900.00	6,661.09	6,641.72	6,639.28	31.51	15.73	-112.36	-150.99	24.86	1,478.87	1,445.74	33.13	44.644		
7,000.00	6,761.09	6,739.11	6,736.58	31.61	15.99	-112.51	-154.88	25.81	1,479.49	1,445.92	33.57	44.073		
7,100.00	6,861.09	6,840.57	6,837.95	31.71	16.26	-112.68	-159.11	26.75	1,480.24	1,446.22	34.02	43.506		
7,200.00	6,961.09	6,948.90	6,946.21	31.82	16.54	-112.83	-162.94	27.96	1,480.58	1,446.08	34.50	42.919		
7,300.00	7,061.09	7,052.83	7,050.09	31.92	16.82	-112.96	-165.88	29.36	1,480.44	1,445.48	34.96	42.351		
7,400.00	7,161.09	7,152.78	7,149.99	32.03	17.08	-113.08	-168.60	30.73	1,480.24	1,444.83	35.40	41.809		
7,500.00	7,261.09	7,252.99	7,250.16	32.14	17.34	-113.19	-171.31	32.10	1,480.04	1,444.18	35.85	41.279		
7,600.00	7,361.09	7,353.43	7,350.56	32.25	17.61	-113.30	-173.82	33.42	1,479.82	1,443.51	36.31	40.760		
7,700.00	7,461.09	7,450.00	7,447.09	32.36	17.86	-113.40	-176.07	34.63	1,479.59	1,442.84	36.75	40.265		
7,700.00	7,461.09	7,450.00	7,447.09	32.36	17.86	-113.40	-176.07	34.63	1,479.59	1,442.84	36.75	40.265		
7,800.00	7,561.09	7,450.00	7,447.09	32.47	17.86	-113.40	-176.07	34.63	1,482.97	1,446.04	36.93	40.160		
7,900.00	7,661.09	7,450.00	7,447.09	32.58	17.86	-113.40	-176.07	34.63	1,493.05	1,455.94	37.11	40.237		
8,000.00	7,761.09	7,450.00	7,447.09	32.69	17.86	-113.40	-176.07	34.63	1,509.70	1,472.41	37.29	40.487		
8,100.00	7,861.09	7,450.00	7,447.09	32.81	17.86	-113.40	-176.07	34.63	1,532.71	1,495.24	37.47	40.904		
8,200.00	7,961.09	7,450.00	7,447.09	32.92	17.86	-113.40	-176.07	34.63	1,561.79	1,524.14	37.65	41.477		
8,300.00	8,061.09	7,450.00	7,447.09	33.04	17.86	-113.40	-176.07	34.63	1,596.62	1,558.78	37.84	42.196		
8,400.00	8,161.09	7,450.00	7,447.09	33.16	17.86	-113.40	-176.07	34.63	1,636.82	1,598.80	38.02	43.048		
8,500.00	8,261.09	7,450.00	7,447.09	33.28	17.86	-113.40	-176.07	34.63	1,682.02	1,643.81	38.21	44.021		
8,600.00	8,361.09	7,450.00	7,447.09	33.40	17.86	-113.40	-176.07	34.63	1,731.82	1,693.42	38.40	45.105		
8,627.91	8,389.00	7,450.00	7,447.09	33.43	17.86	-113.40	-176.07	34.63	1.746.48	1,708.04	38.45	45.425		



Weatherford International Ltd.

Anticollision Report



Company: ANADARKO PETROLEUM CORP. Project: UINTAH COUNTY, UTAH (nad 27)

Bonanza 1023-5M PAD Reference Site:

Site Error: 0.00ft

Reference Well: BONANZA 1023-5N4AS

Well Error: 0.00ft

Reference Wellbore BONANZA 1023-5N4AS

Reference Design: PLAN #1 4-27-10 RHS

Local Co-ordinate Reference:

TVD Reference: MD Reference:

North Reference: **Survey Calculation Method:**

Output errors are at Database:

Offset TVD Reference:

Well BONANZA 1023-5N4AS

WELL @ 5309.00ft (Original Well Elev) WELL @ 5309.00ft (Original Well Elev)

True

Minimum Curvature

2.00 sigma

EDM 2003.21 Single User Db

Offset Datum

Offset De Survey Pro	esign gram: 0-M		za 1023-	5M PAD -	BONAN	ZA 1023-5	M1AS - BON	ANZA 102	23-5M1AS	S - PLAN	#1 4-27-1	0 RHS	Offset Site Error: Offset Well Error:	0.00 ft 0.00 ft
Refer	ence	Offse	et	Semi Major	Axis				Dista	ance				
leasured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbor +N/-S (ft)	e Centre +E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning	
0.00	0.00	0.00	0.00	0.00	0.00	-104.77	-10.20	-38.67	40.00					
100.00	100.00	100.00	100.00	0.10	0.10	-104.77	-10.20	-38.67	40.00	39.80	0.19	206.911		
200.00	200.00	200.00	200.00	0.32	0.32	-104.77	-10.20	-38.67	40.00	39.35	0.64	62.218		
300.00	300.00	300.00	300.00	0.55	0.55	-104.77	-10.20	-38.67	40.00	38.90	1.09	36.614 (CC, ES	
400.00	399.95	400.42	400.40	0.77	0.77	-176.15	-8.44	-38.52	42.05	40.51		27.240		
500.00	499.63	500.33	500.19	1.00	1.01	-171.33	-3.66	-38.12	48.61	46.61	2.00	24.301 8	SF	
600.00	598.77	599.58	599.30	1.27	1.23	-168.30	1.51	-37.68	60.45	57.98	2.47	24.475		
700.00	697.08	698.10	697.70	1.62	1.46	-167.12	6.65	-37.24	77.44	74.49	2.95	26.278		
800.00	794.31	795.64	795.10	2.04	1.70	-167.00	11.74	-36.81	99.45	96.01	3.43	28.985		
900.00	890.18	891.92	891.25	2.56	1.92	-167.39	16.76	-36.38	126.40	122.48	3.92	32.237		
966.67	953.21	955.28	954.52	2.97	2.08	-167.76	20.06	-36.10	147.10	142.85	4.25	34.607		
1,000.00	984.53	986.78	985.97	3.19	2.15	-168.01	21.71	-35.96	157.99	153.57	4.42	35.753		
1,100.00	1,078.50	1,081.27	1,080.33	3.85	2.38	-168.60	26.63	-35.54	190.68	185.75	4.93	38.657		
1,200.00	1,172.47	1,175.76	1,174.70	4.53	2.61	-169.02	31.56	-35.12	223.38	217.93	5.46	40.947		
1,300.00		1,270.25	1,269.06	5.22	2.83	-169.32	36.49	-34.70	256.09	250.11	5.98	42.791		
1,400.00	1,360.41	1,364.74	1,363.42	5.91	3.06	-169.56	41.42	-34.29	288.80	282.29	6.52	44.304		
1,500.00	1,454.38	1,459.23	1,457.78	6.61	3.29	-169.75	46.34	-33.87	321.52	314.47	7.06	45.562		
1,600.00	1,548.35	1,553.73	1,552.14	7.31	3.52	-169.91	51.27	-33.45	354.24	346.64	7.60	46.625		
1,700.00	1,642.32	1,648.22	1,646.51	8.01	3.74	-170.04	56.20	-33.03	386.96	378.82	8.14	47.533		
1,800.00	1,736.29	1,742.71	1,740.87	8.71	3.97	-170.15	61.13	-32.61	419.69	411.00	8.69	48.318		
1,900.00	1,830.26	1,837.20	1,835.23	9.42	4.20	-170.24	66.05	-32.19	452.41	443.18	9.23	49.001		
2,000.00	1,924.23	1,931.69	1,929.59	10.13	4.43	-170.32	70.98	-31.77	485.14	475.36	9.78	49.602		
2,100.00	2,018.20	2,026.18	2,023.95	10.83	4.65	-170.39	75.91	-31.35	517.87	507.54	10.33	50.133		
2,200.00		2,121.88	2,119.51	11.54	4.89	-170.44	81.00	-30.92	550.57	539.69	10.89	50.579		
2,300.00		2,222.91	2,220.13	12.25	5.15	-170.13	89.95	-30.16	582.57	571.08	11.49	50.718		
2,400.00	2,300.10	2,324.12	2,320.31	12.96	5.46	-169.33	104.22	-28.94	613.57	601.42	12.15	50.507		
2,500.00	2,394.07	2,424.93	2,419.21	13.67	5.80	-168.13	123.67	-27.29	643.74	630.86	12.88	49.969		
2,600.00	2,488.04	2,524.80	2,516.02	14.38	6.19	-166.60	148.04	-25.22	673.35	659.64	13.70	49.135		
2,700.00	2,582.01	2,623.20	2,610.03	15.09	6.63	-164.80	176.94	-22.76	702.69	688.07	14.62	48.061		
2,800.00	2,675.98	2,717.86	2,699.17	15.80	7.11	-162.87	208.68	-20.06	732.20	716.58	15.62	46.872		
2,900.00	2,769.95	2,810.42	2,786.15	16.51	7.60	-161.09	240.22	-17.38	762.39	745.73	16.66	45.767		
3,000.00	2,863.92	2,902.97	2,873.13	17.22	8.11	-159.44	271.76	-14.70	793.23	775.50	17.73	44.751		
3,100.00	2,957.89	2,995.53	2,960.10	17.93	8.64	-157.90	303.29	-12.01	824.66	805.84	18.82	43.822		
3,200.00	3,051.86	3,088.09	3,047.08	18.64	9.18	-156.47	334.83	-9.33	856.61	836.68	19.93	42.980		
3,300.00	3,145.83	3,180.65	3,134.06	19.35	9.73	-155.15	366.37	-6.65	889.02	867.96	21.06	42.220		
3,400.00	3,239.80	3,273.21	3,221.04	20.06	10.28	-153.91	397.90	-3.97	921.84	899.65	22.20	41.534		
3,500.00	3,333.76	3,365.77	3,308.02	20.77	10.84	-152.75	429.44	-1.28	955.04	931.70	23.34	40.915		
3,600.00	3,427.73	3,458.32	3,395.00	21.48	11.41	-151.67	460.98	1.40	988.58	964.08	24.50	40.356		
3,700.00	3,521.70	3,550.88	3,481.98	22.19	11.99	-150.66	492.51	4.08	1,022.41	996.76	25.66	39.852		
	3,615.67	3,643.44	3,568.96	22.90	12.56	-149.71	524.05	6.76		1,029.70	26.82	39.396		
3,900.00	3,709.64	3,736.00	3,655.93	23.62	13.14	-148.82	555.59	9.45	1,090.88	1,062.89	27.98	38.982		
4,000.00		3,828.56	3,742.91	24.33	13.73	-147.99	587.12	12.13	1,125.45		29.15	38.607		
4,100.00		3,921.12	3,829.89	25.04	14.32	-147.20	618.66	14.81	1,160.24		30.32	38.266		
4,200.00	3,991.55	4,013.67	3,916.87	25.75	14.91	-146.45	650.20	17.49		1,163.72	31.49	37.955		
4,300.00		4,106.23	4,003.85	26.46	15.50	-145.75	681.73	20.18	1,230.35		32.66	37.671		
4,370.34	4,151.61	4,171.33	4,065.03	26.96	15.92	-145.28	703.91	22.06	1,255.16	1,221.68	33.48	37.486		
4,400.00	4,179.54	4,198.82	4,090.86	27.15	16.09	-145.21	713.28	22.86	1,265.53	1,231.70	33.84	37.402		
4,500.00	4,274.42	4,293.41	4,179.75	27.68	16.69	-144.90	745.47	25.60	1,298.84		34.98	37.132		
4,600.00	4,370.34	4,398.25	4,279.09	28.15	17.20	-144.54	778.86	28.44	1,329.13	1,293.12	36.02	36.905		
4,700.00	4,467.19	4,505.32	4,381.73	28.58	17.69	-144.22	809.20	31.02	1,356.05		36.97	36.684		
4,800.00	4,564.85	4,614.40	4,487.40	28.95	18.14	-143.96	836.15	33.31	1,379.48	1,341.66	37.83	36.469		
4 000 00	4,663.20	4,725.27	4,595.77	29.27	18.55	-143.74	859.42	35.29	1 200 22	1,360.74	38.59	36.262		



Weatherford International Ltd.

Anticollision Report

MD Reference:



Company: ANADARKO PETROLEUM CORP. Project: UINTAH COUNTY, UTAH (nad 27)

Bonanza 1023-5M PAD Reference Site:

Site Error: 0.00ft

Reference Well: BONANZA 1023-5N4AS

Well Error: 0.00ft

Reference Wellbore BONANZA 1023-5N4AS

Reference Design: PLAN #1 4-27-10 RHS

Local Co-ordinate Reference: TVD Reference:

Well BONANZA 1023-5N4AS

WELL @ 5309.00ft (Original Well Elev) WELL @ 5309.00ft (Original Well Elev)

North Reference: True

Minimum Curvature

Survey Calculation Method: Output errors are at

2.00 sigma

EDM 2003.21 Single User Db Database:

Offset TVD Reference: Offset Datum

Offset D			za 1023-	5M PAD -	BONAN	IZA 1023-5	M1AS - BON	ANZA 102	23-5M1AS	S - PLAN	#1 4-27-1	0 RHS	Offset Site Error:	0.00 ft
Survey Pro Refer	ogram: 0-M rence	IWD Offs	et	Semi Majo	r Axis				Dist	ance			Offset Well Error:	0.00 ft
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbo +N/-S (ft)	re Centre +E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning	
5,000.00	4,762.12	4,837.66	4,706.47	29.55	18.91	-143.56	878.73	36.93	1,415.50	1,376.26	39.25	36.065		
5,100.00	4,861.49	4,951.29	4,819.08	29.77	19.22	-143.41	893.84	38.22	1,427.94	1,388.14	39.80	35.877		
5,200.00	4,961.19	5,065.86	4,933.14	29.94	19.48	-143.31	904.56	39.13	1,436.57	1,396.33	40.24	35.700		
5,300.00	5,061.10	5,181.04	5,048.14	30.06	19.69	-143.25	910.74	39.65	1,441.36	1,400.80	40.56	35.533		
5,370.34	5,131.43	5,262.24	5,129.33	30.12	19.79	-69.69	912.33	39.79	1,442.42	1,401.70	40.72	35.419		
5,400.00	5,161.09	5,294.01	5,161.09	30.15	19.83	-69.69	912.37	39.79	1,442.43	1,401.64	40.79	35.360		
5,500.00	5,261.09	5,394.01	5,261.09	30.23	19.95	-69.69	912.37	39.79	1,442.43	1,401.41	41.02	35.164		
5,600.00	5,361.09	5,494.01	5,361.09	30.31	20.07	-69.69	912.37	39.79	1,442.43	1,401.18	41.25	34.966		
5,700.00	5,461.09	5,594.01	5,461.09	30.39	20.20	-69.69	912.37	39.79	1,442.43	1,400.95	41.49	34.768		
5,800.00	5,561.09	5,694.01	5,561.09	30.48	20.32	-69.69	912.37	39.79	1,442.43	1,400.71	41.73	34.569		
5,900.00	5,661.09	5,794.01	5,661.09	30.56	20.45	-69.69	912.37	39.79	1,442.43	1,400.47	41.97	34.370		
6,000.00	5,761.09	5,894.01	5,761.09	30.65	20.58	-69.69	912.37	39.79	1,442.43	1,400.22	42.21	34.170		
6,100.00		5,994.01	5,861.09	30.74	20.71	-69.69	912.37	39.79	1,442.43	1,399.97	42.46	33.969		
6,200.00		6,094.01	5,961.09	30.83	20.84	-69.69	912.37	39.79	1,442.43	1,399.72		33.769		
6,300.00		6,194.01	6,061.09	30.93	20.97	-69.69	912.37	39.79	1,442.43	1,399.46	42.97	33.568		
6,400.00		6,294.01	6,161.09	31.02	21.11	-69.69	912.37	39.79	1,442.43	1,399.20	43.23	33.367		
6,500.00	6,261.09	6,394.01	6,261.09	31.11	21.24	-69.69	912.37	39.79	1,442.43	1,398.94	43.49	33.167		
6,600.00		6,494.01	6,361.09	31.11	21.38	-69.69	912.37	39.79	1,442.43	1,398.68	43.76	32.966		
6,700.00		6,594.01	6,461.09	31.31	21.52	-69.69	912.37	39.79	1,442.43	1,398.41	44.02	32.765		
6,800.00		6,694.01	6,561.09	31.41	21.66	-69.69	912.37	39.79	1,442.43	1,398.14	44.29	32.565		
6,900.00		6,794.01	6,661.09	31.51	21.80	-69.69	912.37	39.79	1,442.43	1,397.87	44.57	32.365		
0,300.00	0,001.03	0,734.01	0,001.03	31.31	21.00	-03.03	312.37	55.75	1,442.40	1,007.07	44.57	32.303		
7,000.00	6,761.09	6,894.01	6,761.09	31.61	21.95	-69.69	912.37	39.79	1,442.43	1,397.59	44.84	32.166		
7,100.00	6,861.09	6,994.01	6,861.09	31.71	22.09	-69.69	912.37	39.79	1,442.43	1,397.31	45.12	31.967		
7,200.00	6,961.09	7,094.01	6,961.09	31.82	22.24	-69.69	912.37	39.79	1,442.43	1,397.03	45.40	31.769		
7,300.00	7,061.09	7,194.01	7,061.09	31.92	22.39	-69.69	912.37	39.79	1,442.43	1,396.74	45.69	31.571		
7,400.00	7,161.09	7,294.01	7,161.09	32.03	22.54	-69.69	912.37	39.79	1,442.43	1,396.46	45.98	31.374		
7,500.00	7,261.09	7,394.01	7,261.09	32.14	22.69	-69.69	912.37	39.79	1,442.43	1,396.17	46.27	31.177		
7,600.00		7,494.01	7,361.09	32.25	22.84	-69.69	912.37	39.79	1,442.43	1,395.88	46.56	30.981		
7,700.00		7,594.01	7,461.09	32.36	22.99	-69.69	912.37	39.79	1,442.43	1,395.58	46.85	30.786		
7,800.00			7,561.09	32.47	23.14	-69.69	912.37	39.79	1,442.43	1,395.28	47.15	30.592		
7,900.00		7,794.01	7,661.09	32.58	23.30	-69.69	912.37	39.79	1,442.43	1,394.98	47.45	30.399		
8,000.00	7,761.09	7,894.01	7,761.09	32.69	23.45	-69.69	912.37	39.79	1,442.43	1,394.68	47.75	30.207		
8,100.00		7,894.01	7,761.09	32.81	23.45	-69.69	912.37	39.79	1,442.43	1,394.88	48.06	30.207		
8,200.00		8,094.01	7,861.09	32.92	23.77	-69.69	912.37	39.79	1,442.43	1,394.36	48.36	29.826		
			8,061.09		23.77	-69.69	912.37	39.79		1,394.07		29.826		
8,300.00 8,400.00		8,194.01 8,294.01	8,061.09	33.04 33.16	23.93	-69.69 -69.69	912.37	39.79	1,442.43 1,442.43	1,393.76	48.67 48.98	29.637 29.448		
8,500.00		8,394.01	8,261.09	33.28	24.25	-69.69	912.37	39.79	1,442.43	1,393.14	49.29	29.261		
8,600.00		8,494.01	8,361.09	33.40	24.41	-69.69	912.37	39.79	1,442.43	1,392.82	49.61	29.076		
8,627.91	8,389.00	8,521.92	8,389.00	33.43	24.46	-69.69	912.37	39.79	1,442.43	1,392.74	49.70	29.024		



Weatherford International Ltd.

Anticollision Report

Database:



Company: ANADARKO PETROLEUM CORP.
Project: UINTAH COUNTY, UTAH (nad 27)

Project: UINTAH COUNTY, UTAH (nad 27)
Reference Site: Bonanza 1023-5M PAD

Site Error: 0.00ft

Reference Well: BONANZA 1023-5N4AS

Well Error: 0.00ft

Reference Wellbore BONANZA 1023-5N4AS

Reference Design: PLAN #1 4-27-10 RHS

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

W

WELL @ 5309.00ft (Original Well Elev) WELL @ 5309.00ft (Original Well Elev)

True

Survey Calculation Method: Minimum Curvature

Output errors are at 2.00 sigma

EDM 2003.21 Single User Db

Well BONANZA 1023-5N4AS

Offset TVD Reference: Offset Datum

Offset D Survey Pro			za 1023-	5M PAD -	BONAN	IZA 1023-5	M1CS - BON	IANZA 10	23-5M1C	S - PLAN	#1 4-27-	10 RHS	Offset Site Error: Offset Well Error:	0.00 ft 0.00 ft
Survey Program: 0-MWD Reference		Offs	et	Semi Major	r Axis				Dista	ance			Chact Hell Eller.	0.00 ft
leasured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbon +N/-S (ft)	re Centre +E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning	
0.00	0.00	0.00	0.00	0.00	0.00	-104.73	-12.75	-48.48	50.13					
100.00	100.00	100.00	100.00	0.10	0.10	-104.73	-12.75	-48.48	50.13	49.94	0.19	259.340		
200.00	200.00	200.00	200.00	0.32	0.32	-104.73	-12.75	-48.48	50.13	49.49	0.64	77.983		
300.00	300.00	300.00	300.00	0.55	0.55	-104.73	-12.75	-48.48	50.13	49.04		45.891 (CC, ES	
400.00	399.95	400.06	400.02	0.77	0.78	-175.50	-10.17	-48.97	52.62	51.08		34.067		
500.00	499.63	499.39	499.03	1.00	1.02	-168.65	-2.53	-50.40	60.69	58.67	2.02	30.113		
600.00	598.77	597.28	596.08	1.27	1.28	-160.71	9.94	-52.75	75.42	72.89		29.806 9	SF	
700.00	697.08	693.07	690.30	1.62	1.59	-153.76	26.86	-55.93	97.36	94.25		31.326		
800.00	794.31	786.17	780.94	2.04	1.97	-148.34	47.74	-59.85	126.43	122.67	3.76	33.605		
900.00 966.67	890.18 953.21	876.58 937.52	867.87 926.17	2.56 2.97	2.40 2.73	-144.23 -142.34	72.10 89.54	-64.43 -67.71	162.22 188.97	157.72 183.94	4.50 5.04	36.038 37.519		
1,000.00	984.53	967.82	955.16	3.19	2.89	-141.91	98.22	-69.34	202.79	197.48		38.175		
1,100.00		1,058.73	1,042.13	3.85	3.39	-140.89	124.23	-74.23	244.30	238.14	6.16	39.631		
1,200.00		1,149.64	1,129.10	4.53	3.89	-140.17	150.25	-79.12	285.86	278.81		40.578		
1,300.00 1,400.00		1,240.54 1,331.45	1,216.07 1,303.03	5.22 5.91	4.40 4.92	-139.64 -139.22	176.26 202.28	-84.01 -88.90	327.44 369.04	319.49 360.18		41.207 41.653		
1,500.00	1,454.38	1,422.36	1,390.00	6.61	5.44	-138.89	228.29	-93.79	410.65	400.87	9.78	41.979		
1,600.00		1,513.27	1,476.97	7.31	5.96	-138.62	254.31	-98.68	452.28	441.56		42.220		
	1,642.32	1,604.17	1,563.94	8.01	6.48	-138.39	280.32	-103.57	493.91	482.26		42.403		
1,800.00		1,695.08	1,650.90	8.71	7.01	-138.20	306.34	-108.46	535.54	522.95		42.544		
1,900.00	1,830.26	1,785.99	1,737.87	9.42	7.53	-138.04	332.36	-113.35	577.18	563.65	13.53	42.655		
2,000.00	1,924.23	1,876.90	1,824.84	10.13	8.06	-137.90	358.37	-118.24	618.82	604.34	14.48	42.744		
2,100.00	2,018.20	1,967.80	1,911.81	10.83	8.59	-137.78	384.39	-123.13	660.47	645.04	15.43	42.816		
2,200.00	2,112.16	2,058.71	1,998.78	11.54	9.11	-137.67	410.40	-128.02	702.11	685.74	16.38	42.875		
2,300.00		2,149.62	2,085.74	12.25	9.64	-137.57	436.42	-132.91	743.76	726.44	17.33	42.924		
2,400.00	2,300.10	2,252.77	2,184.79	12.96	10.14	-137.56	464.72	-138.23	784.79	766.54	18.25	42.992		
2,500.00	2,394.07	2,359.16	2,287.83	13.67	10.58	-137.76	490.71	-143.12	824.20	805.07	19.13	43.077		
2,600.00	2,488.04	2,466.95	2,393.06	14.38	10.99	-138.15	513.67	-147.44	861.95	841.97	19.98	43.149		
2,700.00		2,575.95	2,500.18	15.09	11.36	-138.72	533.42	-151.15	898.05	877.27	20.78	43.221		
2,800.00		2,685.91	2,608.87	15.80	11.69	-139.44	549.77	-154.22	932.54	911.01		43.307		
2,900.00	2,769.95	2,796.60	2,718.79	16.51	11.97	-140.30	562.61	-156.63	965.46	943.22	22.23	43.421		
3,000.00	2,863.92	2,907.79	2,829.57	17.22	12.21	-141.30	571.81	-158.36	996.88	974.00	22.88	43.577		
3,100.00	2,957.89	3,019.20	2,940.84	17.93	12.39	-142.41	577.32	-159.40	1,026.89	1,003.43		43.784		
3,200.00		3,130.24	3,051.86	18.64	12.53	-143.63	579.11	-159.74	1,055.59	1,031.63	23.97	44.042		
3,300.00		3,224.21	3,145.83	19.35	12.63	-144.68	579.11	-159.74	1,083.89	1,059.44		44.332		
3,400.00	3,239.80	3,318.18	3,239.80	20.06	12.74	-145.68	579.11	-159.74	1,112.53	1,087.60	24.92	44.635		
3,500.00		3,412.15	3,333.76	20.77	12.84	-146.63	579.11	-159.74	1,141.46			44.951		
3,600.00		3,506.12	3,427.73	21.48	12.95	-147.54	579.11	-159.74	1,170.69		25.86	45.275		
	3,521.70		3,521.70	22.19	13.07	-148.40	579.11	-159.74		1,173.86		45.607		
	3,615.67		3,615.67	22.90	13.18	-149.22	579.11	-159.74		1,203.13		45.944		
კ,900.00	3,709.64	3,788.02	3,709.64	23.62	13.30	-150.01	579.11	-159.74	1,259.86	1,232.64	27.22	46.283		
4,000.00		3,881.99	3,803.61	24.33	13.42	-150.76	579.11	-159.74		1,262.36		46.623		
4,100.00		3,975.96	3,897.58	25.04	13.54	-151.47	579.11	-159.74	1,320.39			46.964		
4,200.00		4,069.93	3,991.55	25.75	13.66	-152.16	579.11	-159.74		1,322.38		47.303		
4,300.00 4,370.34	4,085.52 4,151.61	4,163.90 4,229.99	4,085.52 4,151.61	26.46 26.96	13.79 13.88	-152.81 -153.25	579.11 579.11	-159.74 -159.74		1,352.66 1,374.05		47.639 47.875		
4,400.00		4,257.92	4,179.54	27.15	13.92	-153.52	579.11	-159.74		1,382.95		47.939		
4,500.00		4,352.80	4,274.42	27.68	14.05	-154.33 155.03	579.11 579.11	-159.74		1,411.12		48.160		
4,600.00	4,370.34 4,467.19	4,448.72 4,545.57	4,370.34 4,467.19	28.15 28.58	14.18 14.32	-155.03 155.63	579.11 579.11	-159.74 -159.74	1,466.77	1,436.41 1,458.74		48.318 48.419		
4,700.00		4,643.23	4,467.19	28.95	14.32	-155.63 -156.13	579.11 579.11	-159.74		1,456.74		48.464		



Weatherford International Ltd.

Anticollision Report

TVD Reference:

MD Reference:



Company: ANADARKO PETROLEUM CORP.
Project: UINTAH COUNTY, UTAH (nad 27)

Reference Site: Bonanza 1023-5M PAD

Site Error: 0.00ft

Reference Well: BONANZA 1023-5N4AS

Well Error: 0.00ft

Reference Wellbore BONANZA 1023-5N4AS

Reference Design: PLAN #1 4-27-10 RHS

Local Co-ordinate Reference:

Well BONANZA 1023-5N4AS

WELL @ 5309.00ft (Original Well Elev)
WELL @ 5309.00ft (Original Well Elev)

North Reference: True

Survey Calculation Method: Minimum Curvature

Output errors are at 2.00 sigma

Database: EDM 2003.21 Single User Db

Offset TVD Reference: Offset Datum

ffset Design Bonanza 1023-5M PAD - BONANZA 1023-5M1CS - BONANZA 1023-5M1CS - PLAN #1 4-27-10 RHS urvey Program: 0-MWD								Offset Well Error	0.00 ft					
Reference			Offset		r Axis				Distance				Offset Well Error:	0.00π
	Vertical Depth (ft)	Measured Vertical Depth Depth (ft) (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbor +N/-S (ft)	re Centre +E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning		
00.00	4,762.12	4,840.50	4,762.12	29.55	14.75	-156.86	579.11	-159.74	1,539.22	1,507.42	31.80	48.399		
100.00	4,861.49	4,939.88	4,861.49	29.77	14.90	-157.10	579.11	-159.74	1,549.50	1,517.41	32.09	48.291		
200.00	4,961.19	5,039.57	4,961.19	29.94	15.05	-157.27	579.11	-159.74	1,556.59	1,524.25	32.34	48.134		
300.00	5,061.10	5,139.48	5,061.10	30.06	15.21	-157.36	579.11	-159.74	1,560.46	1,527.90	32.56	47.928		
370.34	5,131.43	5,209.81	5,131.43	30.12	15.32	-83.84	579.11	-159.74	1,561.26	1,528.56	32.70	47.752		
400.00	5,161.09	5,239.47	5,161.09	30.15	15.36	-83.84	579.11	-159.74	1,561.26	1,528.48	32.78	47.630		
500.00	5,261.09	5,339.47	5,261.09	30.23	15.52	-83.84	579.11	-159.74	1,561.26	1,528.19	33.06	47.219		
00.00	5,361.09	5,439.47	5,361.09	30.31	15.68	-83.84	579.11	-159.74	1,561.26	1,527.91	33.35	46.810		
700.00	5,461.09	5,539.47	5,461.09	30.39	15.84	-83.84	579.11	-159.74	1,561.26	1,527.61	33.65	46.403		
300.00	5,561.09	5,639.47	5,561.09	30.48	16.00	-83.84	579.11	-159.74	1,561.26	1,527.32	33.94	45.998		
	5,661.09	5,739.47	5,661.09	30.56	16.17	-83.84	579.11	-159.74	1,561.26	1,527.02	34.24	45.597		
00.00	5,761.09	5,839.47	5,761.09	30.65	16.33	-83.84	579.11	-159.74	1,561.26	1,526.72	34.54	45.197		
	5.861.09	5,939.47	5,861.09	30.74	16.50	-83.84	579.11	-159.74	1,561.26	1,526.41	34.85	44.801		
	5,961.09	6,039.47	5,961.09	30.83	16.67	-83.84	579.11	-159.74	1,561.26		35.16	44.408		
300.00	6,061.09	6,139.47	6,061.09	30.93	16.84	-83.84	579.11	-159.74	1,561.26	1,525.79	35.47	44.018		
	6,161.09	6,239.47	6,161.09	31.02	17.01	-83.84	579.11	-159.74	1,561.26	1,525.48	35.78	43.631		
500.00	6,261.09	6,339.47	6,261.09	31.11	17.18	-83.84	579.11	-159.74	1,561.26	1,525.16	36.10	43.248		
	6,361.09	6,439.47	6,361.09	31.21	17.35	-83.84	579.11	-159.74	1,561.26	1,524.84	36.42			
	6,461.09	6,539.47	6,461.09	31.31	17.53	-83.84	579.11	-159.74	1,561.26	•	36.74	42.492		
	6,561.09	6,639.47	6,561.09	31.41	17.70	-83.84	579.11	-159.74	1,561.26	1,524.19	37.07	42.119		
	6,661.09	6,739.47	6,661.09	31.51	17.78	-83.84	579.11	-159.74	1,561.26	1,523.86	37.40	41.750		
	0,001.00	0,7 00. 17	0,001.00	0	11.00	00.01	0.0		1,001.20	1,020.00	01.10			
00.00	6,761.09	6,839.47	6,761.09	31.61	18.06	-83.84	579.11	-159.74	1,561.26	1,523.53	37.73	41.384		
100.00	6,861.09	6,939.47	6,861.09	31.71	18.23	-83.84	579.11	-159.74	1,561.26	1,523.20	38.06	41.023		
200.00	6,961.09	7,039.47	6,961.09	31.82	18.41	-83.84	579.11	-159.74	1,561.26	1,522.86	38.39	40.665		
300.00	7,061.09	7,139.47	7,061.09	31.92	18.59	-83.84	579.11	-159.74	1,561.26	1,522.53	38.73	40.311		
400.00	7,161.09	7,239.47	7,161.09	32.03	18.78	-83.84	579.11	-159.74	1,561.26	1,522.19	39.07	39.960		
500.00	7,261.09	7,339.47	7,261.09	32.14	18.96	-83.84	579.11	-159.74	1,561.26	1,521.85	39.41	39.614		
00.00	7,361.09	7,439.47	7,361.09	32.25	19.14	-83.84	579.11	-159.74	1,561.26	1,521.50	39.76	39.272		
	7,461.09	7,539.47	7,461.09	32.36	19.33	-83.84	579.11	-159.74	1,561.26	1,521.16	40.10	38.933		
	7,561.09	7,639.47	7,561.09	32.47	19.51	-83.84	579.11	-159.74	1,561.26	1,520.81	40.45	38.598		
	7,661.09	7,739.47	7,661.09	32.58	19.70	-83.84	579.11	-159.74	1,561.26	1,520.46	40.80	38.267		
00.00	7,761.09	7,839.47	7,761.09	32.69	19.88	-83.84	579.11	-159.74	1,561.26	1,520.11	41.15	37.940		
	7,861.09	7,939.47	7,861.09	32.81	20.07	-83.84	579.11	-159.74	1,561.26	1,519.75	41.50	37.617		
	7,961.09	8,039.47	7,961.09	32.92	20.26	-83.84	579.11	-159.74	1,561.26	1,519.40	41.86	37.298		
	8,061.09	8,139.47	8,061.09	33.04	20.45	-83.84	579.11	-159.74	1,561.26	•	42.22			
	8,161.09	8,239.47	8,161.09	33.16	20.64	-83.84	579.11	-159.74	1,561.26	1,518.68	42.57	36.671		
500.00	8,261.09	8,339.47	8,261.09	33.28	20.83	-83.84	579.11	-159.74	1,561.26	1,518.32	42.94	36.363		
	8,361.09	8,439.47	8,361.09	33.40	21.02	-83.84	579.11	-159.74	1,561.26	1,517.96	43.30	36.059		
		8,467.38	8,389.00	33.43	21.02	-83.84	579.11	-159.74		1,517.96	43.40	35.975		



Weatherford International Ltd.

Anticollision Report



Company: ANADARKO PETROLEUM CORP. Project: UINTAH COUNTY, UTAH (nad 27)

Bonanza 1023-5M PAD Reference Site:

Site Error: 0.00ft

Reference Well: BONANZA 1023-5N4AS

Well Error: 0.00ft

Reference Wellbore BONANZA 1023-5N4AS

Reference Design: PLAN #1 4-27-10 RHS

4/27/2010 2:29:09PM

Local Co-ordinate Reference:

TVD Reference: MD Reference:

North Reference:

Survey Calculation Method:

Output errors are at

Database:

Offset TVD Reference:

Well BONANZA 1023-5N4AS

WELL @ 5309.00ft (Original Well Elev) WELL @ 5309.00ft (Original Well Elev)

True

Minimum Curvature

2.00 sigma

EDM 2003.21 Single User Db

Offset Datum

Offset D			za 1023-	-5M PAD - BONANZA 1023-5M3BS - BONANZA 1023-5M3BS - PLAN #1 4-27-10 RHS Offset Site Error										0.00 ft
Survey Program: 0-MWD Reference Offset		et	Semi Major	Axis				Distance				Offset Well Error:	0.00 ft	
leasured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbor +N/-S (ft)	e Centre +E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning	
0.00	0.00	0.00	0.00	0.00	0.00	-104.77	-15.30	-58.01	59.99					
100.00	100.00	100.00	100.00	0.10	0.10	-104.77	-15.30	-58.01	59.99	59.80				
200.00	200.00	200.00	200.00	0.32	0.32	-104.77	-15.30	-58.01	59.99	59.35		93.327		
300.00	300.00	300.00	300.00	0.55	0.55	-104.77	-15.30	-58.01	59.99	58.90			CC, ES	
400.00	399.95	398.27	398.25	0.77	0.76	-177.40	-14.58	-59.53	63.93	62.39				
500.00	499.63	496.62	496.48	1.00	0.98	-175.38	-12.58	-63.77	75.49	73.48				
600.00	598.77	595.10	594.84	1.27	1.21	-174.03	-10.38	-68.43	92.64	90.18		37.530 8	SF	
700.00	697.08	692.57	692.17	1.62	1.44	-173.38	-8.20	-73.04	114.93	112.00				
800.00	794.31	788.75	788.22	2.04	1.67	-173.15	-6.05	-77.59	142.26	138.86				
900.00	890.18	883.38	882.72	2.56	1.89	-173.16	-3.94	-82.07	174.55	170.69				
966.67	953.21	945.48	944.73	2.97	2.04	-173.24	-2.55	-85.01	198.79	194.62				
1,000.00	984.53	976.32	975.53	3.19	2.12	-173.33	-1.86	-86.47	211.45	207.12				
1,100.00	1,078.50	1,068.82	1,067.90	3.85	2.34	-173.54	0.20	-90.85	249.43	244.61				
1,200.00	1,172.47	1,161.33	1,160.28	4.53	2.56	-173.70	2.27	-95.23	287.40	282.09				
1,300.00 1,400.00	1,266.44 1,360.41	1,253.83 1,346.34	1,252.66 1,345.04	5.22 5.91	2.79 3.01	-173.82 -173.92	4.34 6.40	-99.60 -103.98	325.38 363.37	319.57 357.04				
1,500.00	1.454.38	1,438.84	1,437.42	6.61	3.24	-174.00	8.47	-108.36	401.35	394.51				
1,600.00	1,548.35	1,531.35	1,529.79	7.31	3.46	-174.06	10.54	-112.74	439.33	431.98				
1,700.00	1,642.32	1,623.85	1,622.17	8.01	3.69	-174.11	12.60	-117.12	477.31	469.45				
1,800.00	1,736.29	1,716.35	1,714.55	8.71	3.91	-174.16	14.67	-121.49	515.30	506.91				
1,900.00	1,830.26	1,808.86	1,806.93	9.42	4.14	-174.20	16.74	-125.87	553.28	544.37				
2,000.00	1,924.23	1,901.36	1,899.31	10.13	4.36	-174.23	18.80	-130.25	591.26	581.84	9.43	62.708		
2,100.00	2,018.20	1,993.87	1,991.68	10.83	4.59	-174.26	20.87	-134.63	629.25	619.30	9.95	63.222		
2,200.00	2,112.16	2,086.37	2,084.06	11.54	4.81	-174.29	22.94	-139.01	667.23	656.75	10.48	63.678		
2,300.00	2,206.13	2,159.03	2,156.54	12.25	5.00	-174.25	25.06	-143.50	706.43	695.46		64.378		
2,400.00	2,300.10	2,228.47	2,225.60	12.96	5.20	-174.08	28.18	-150.11	748.35	736.87	11.47	65.238		
2,500.00	2,394.07	2,300.00	2,296.40	13.67	5.41	-173.80	32.51	-159.28	792.90	780.91				
2,600.00	2,488.04	2,361.25	2,356.69	14.38	5.62	-173.48	37.12	-169.04	839.95	827.46				
2,700.00	2,582.01	2,424.47	2,418.52	15.09	5.85	-173.09	42.74	-180.95	889.46	876.46				
2,800.00	2,675.98	2,485.53	2,477.79	15.80	6.10	-172.66	48.99	-194.19	941.33	927.82				
2,900.00	2,769.95	2,544.41	2,534.48	16.51	6.36	-172.20	55.79	-208.58	995.46	981.43	14.03	70.948		
3,000.00	2,863.92	2,600.00	2,587.52	17.22	6.62	-171.74	62.88	-223.61	1,051.76	1,037.22				
3,100.00	2,957.89	2,659.04	2,643.31	17.93	6.93	-171.22	71.14	-241.09	1,110.16					
3,200.00	3,051.86	2,733.65	2,713.41	18.64	7.35	-170.59	82.03	-264.17	1,169.71					
3,300.00	3,145.83	2,813.22	2,788.19	19.35	7.81	-169.98	93.65	-288.78	1,229.38					
3,400.00	3,239.80	2,892.79	2,862.96	20.06	8.28	-169.42	105.27	-313.39	1,289.13	1,272.20	16.93	76.167		
3,500.00	3,333.76	2,972.36	2,937.73	20.77	8.77	-168.91	116.89	-338.00	1,348.95	•				
3,600.00	3,427.73	3,051.94	3,012.50	21.48	9.27	-168.44	128.51	-362.61	1,408.84	1,390.65				
3,700.00	3,521.70	3,131.51		22.19	9.77	-168.01	140.14	-387.23	1,468.78					
3,800.00		3,211.08	3,162.05	22.90	10.28	-167.62	151.76	-411.84	1,528.77					
3,900.00	3,709.64	3,290.65	3,236.82	23.62	10.80	-167.25	163.38	-436.45	1,588.80	1,568.71	20.09	79.083		
4,000.00	3,803.61	3,370.22	3,311.59	24.33	11.33	-166.91	175.00	-461.06	1,648.87					
4,100.00	3,897.58	3,449.80	3,386.37	25.04	11.86	-166.59	186.62	-485.67	1,708.98	1,687.61				
4,200.00	3,991.55	3,529.37	3,461.14	25.75	12.39	-166.30	198.24	-510.29	1,769.12					
4,300.00 4,370.34	4,085.52 4,151.61	3,608.94 3,664.91	3,535.91 3,588.51	26.46 26.96	12.93 13.30	-166.02 -165.84	209.86 218.03	-534.90 -552.21	1,829.29 1,871.62					
		3,688.60												
4,400.00 4,500.00	4,179.54 4,274.42	3,688.60	3,610.77 3,686.97	27.15 27.68	13.47 14.02	-165.87 -165.95	221.49 233.34	-559.54 -584.62	1,889.36 1,947.40					
4,600.00	4,274.42	3,852.63	3,764.90	28.15	14.02	-165.99	233.34 245.45	-564.62	2,002.69	•				
4,700.00	4,370.34	3,937.29	3,844.45	28.58	15.17	-165.99	245.45 257.81	-610.27 -636.46	2,002.69					
4,800.00	4,564.85	4,023.57	3,925.53	28.95	15.76	-165.97	270.41	-663.14	2,104.75			80.740		
4,900.00	4,663.20	4,287.62	4.177.46	29.27	17.11	-165.45	304.04	-734.37	2.147.82	2,120.62	27.20	78.964		

COMPASS 2003.21 Build 40



Weatherford International Ltd.

Anticollision Report

TVD Reference:

MD Reference:

Database:



Company: ANADARKO PETROLEUM CORP. Project: UINTAH COUNTY, UTAH (nad 27)

Bonanza 1023-5M PAD Reference Site:

Site Error: 0.00ft

Reference Well: BONANZA 1023-5N4AS

Well Error: 0.00ft

Reference Wellbore BONANZA 1023-5N4AS

Reference Design: PLAN #1 4-27-10 RHS

Local Co-ordinate Reference:

Well BONANZA 1023-5N4AS

WELL @ 5309.00ft (Original Well Elev) WELL @ 5309.00ft (Original Well Elev)

North Reference: True

Survey Calculation Method: Minimum Curvature

2.00 sigma Output errors are at

EDM 2003.21 Single User Db

Offset TVD Reference: Offset Datum

	gram: 0-M	1WD				ZA 1023-5	5M3BS - BON	ANZA 102			#14-27-1	U KHS	Offset Site Error: Offset Well Error:	0.00 ft
Refer	ence	Offs	et	Semi Major	r Axis				Dista	ance				
leasured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbor +N/-S (ft)	e Centre +E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning	
5,000.00		4,576.63	4,460.22	29.55	18.17	-165.15	329.34	-787.94	2,179.85		28.20	77.293		
5,100.00	4,861.49	4,884.22	4,766.04	29.77	18.88	-165.11	342.75	-816.35	2,199.68	2,170.65	29.03	75.785		
5,200.00	4,961.19	5,079.42	4,961.19	29.94	19.13	-165.22	344.20	-819.42	2,208.06	2,178.58	29.48	74.889		
5,300.00	5,061.10	5,179.33	5,061.10	30.06	19.25	-165.27	344.20	-819.42	2,212.12	2,182.37	29.75	74.345		
5,370.34	5,131.43	5,249.66	5,131.43	30.12	19.34	-91.75	344.20	-819.42	2,212.96	2,183.04	29.92	73.959		
5,400.00	5,161.09	5,279.32	5,161.09	30.15	19.38	-91.75	344.20	-819.42	2,212.96	2,182.95	30.01	73.741		
5,500.00	5,261.09	5,379.32	5,261.09	30.23	19.50	-91.75	344.20	-819.42	2,212.96	2,182.65	30.31	73.003		
5,600.00	5,361.09	5,479.32	5,361.09	30.31	19.63	-91.75	344.20	-819.42	2,212.96	2,182.34	30.62	72.271		
5,700.00	5,461.09	5,579.32	5,461.09	30.39	19.76	-91.75	344.20	-819.42	2,212.96	2,182.03	30.93	71.546		
5,800.00	5,561.09	5,679.32	5,561.09	30.48	19.89	-91.75	344.20	-819.42	2,212.96	2,181.72	31.24	70.828		
5,900.00	5,661.09	5,779.32	5,661.09	30.56	20.02	-91.75	344.20	-819.42	2,212.96	2,181.40	31.56	70.117		
6,000.00	5,761.09	5,879.32	5,761.09	30.65	20.15	-91.75	344.20	-819.42	2,212.96	2,181.08	31.88	69.413		
6,100.00	5,861.09	5,979.32	5,861.09	30.74	20.29	-91.75	344.20	-819.42	2,212.96	2,180.76	32.20	68.717		
6,200.00	5,961.09	6,079.32	5,961.09	30.83	20.42	-91.75	344.20	-819.42	2,212.96	2,180.43	32.53	68.028		
6,300.00	6,061.09	6,179.32	6,061.09	30.93	20.56	-91.75	344.20	-819.42	2,212.96	2,180.10	32.86	67.347		
6,400.00	6,161.09	6,279.32	6,161.09	31.02	20.70	-91.75	344.20	-819.42	2,212.96	2,179.77	33.19	66.674		
6,500.00	6,261.09	6,379.32	6,261.09	31.11	20.84	-91.75	344.20	-819.42	2,212.96	2,179.43	33.53	66.008		
6,600.00	-	6,479.32	6,361.09	31.21	20.99	-91.75	344.20	-819.42	2,212.96		33.86	65.351		
6,700.00		6,579.32	6,461.09	31.31	21.13	-91.75	344.20	-819.42	2,212.96		34.20	64.702		
6,800.00		6,679.32	6,561.09	31.41	21.28	-91.75	344.20	-819.42	2,212.96		34.54	64.062		
6,900.00		6,779.32	6,661.09	31.51	21.42	-91.75	344.20	-819.42	2,212.96		34.89	63.429		
7,000.00	6,761.09	6,879.32	6,761.09	31.61	21.57	-91.75	344.20	-819.42	2,212.96	2,177.72	35.24	62.805		
7,100.00		6,979.32	6,861.09	31.71	21.72	-91.75	344.20	-819.42	2,212.96		35.58	62.188		
7,200.00	-	7,079.32	6,961.09	31.82	21.87	-91.75	344.20	-819.42	2,212.96		35.94	61.580		
7,300.00	-	7,179.32	7,061.09	31.92	22.02	-91.75	344.20	-819.42	2,212.96		36.29	60.981		
7,400.00	-	7,279.32	7,161.09	32.03	22.18	-91.75	344.20	-819.42	2,212.96	2,176.31	36.65	60.389		
7,500.00	7,261.09	7,379.32	7,261.09	32.14	22.33	-91.75	344.20	-819.42	2,212.96	2,175.96	37.00	59.805		
7,600.00	-	7,479.32	7,361.09	32.14	22.49	-91.75 -91.75	344.20	-819.42	2,212.96		37.36	59.230		
7,700.00		7,579.32	7,361.09	32.25	22.49	-91.75 -91.75	344.20	-819.42	2,212.96		37.72	58.662		
7,800.00		7,679.32	7,561.09	32.47	22.80	-91.75 -91.75	344.20	-819.42	2,212.96		38.09	58.103		
7,900.00		7,779.32	7,661.09	32.58	22.96	-91.75 -91.75	344.20	-819.42	2,212.96		38.45	57.551		
8,000.00	7,761.09	7,879.32	7,761.09	32.69	23.12	-91.75	344.20	-819.42	2,212.96	2,174.14	38.82	57.007		
8,100.00	-	7,979.32	7,761.09	32.81	23.12	-91.75 -91.75	344.20	-819.42	2,212.96		39.19	56.471		
8,200.00	-	8,079.32	7,861.09	32.92	23.44	-91.75 -91.75	344.20 344.20	-819.42	2,212.96		39.19	55.943		
8,300.00	-	8,179.32	8,061.09	32.92	23.44	-91.75 -91.75	344.20 344.20	-819.42	2,212.96		39.93	55.422		
8,400.00		8,279.32	8,161.09	33.16	23.77	-91.75 -91.75	344.20	-819.42	2,212.96		40.30	54.908		
				00.00	00.01			040.40			40.00			
8,500.00	-	8,379.32	8,261.09	33.28	23.94	-91.75	344.20	-819.42	2,212.96		40.68	54.402		
8,600.00	8,361.09	8,479.32	8,361.09	33.40	24.10	-91.75	344.20	-819.42	2,212.96	2,171.91	41.05	53.904		
8,627.91	8,389.00	8,507.23	8,389.00	33.43	24.15	-91.75	344.20	-819.42	2,212.96	2,171.80	41.16	53.766		



Weatherford International Ltd.

Anticollision Report



ANADARKO PETROLEUM CORP. Company:

Project: UINTAH COUNTY, UTAH (nad 27) Bonanza 1023-5M PAD Reference Site:

Site Error: 0.00ft

Reference Well: BONANZA 1023-5N4AS

Well Error: 0.00ft

Reference Wellbore BONANZA 1023-5N4AS

Reference Design: PLAN #1 4-27-10 RHS

Local Co-ordinate Reference:

TVD Reference:

MD Reference:

North Reference:

Survey Calculation Method:

Output errors are at

Database: Offset TVD Reference:

Minimum Curvature 2.00 sigma

EDM 2003.21 Single User Db

Well BONANZA 1023-5N4AS

WELL @ 5309.00ft (Original Well Elev)

WELL @ 5309.00ft (Original Well Elev)

Offset Datum

True

Bonanza 1023-5M PAD - BONANZA 1023-5M3CS - BONANZA 1023-5M3CS - PLAN #1 4-27-10 RHS Offset Design Offset Site Error: 0.00 ft

Survey Program: 0-MWD									Offset Well Error:	0.00 ft				
Refer		Offs		Semi Major					Dista					
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbor +N/-S (ft)	e Centre +E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)		Warning	
0.00	0.00	0.00	0.00	0.00	0.00	-104.80	-17.85	-67.54	69.86					
100.00	100.00	100.00	100.00	0.10	0.10	-104.80	-17.85	-67.54	69.86	69.66	0.19	361.393		
200.00	200.00	200.00	200.00	0.32	0.32	-104.80	-17.85	-67.54	69.86	69.21	0.64	108.671		
300.00	300.00	300.00	300.00	0.55	0.55	-104.80	-17.85	-67.54	69.86	68.76	1.09	63.950 C	C, ES	
400.00	399.95	397.51	397.49	0.77	0.75	-178.10	-17.91	-69.20	74.13	72.60	1.53	48.310		
500.00	499.63	495.33	495.20	1.00	0.97	-177.59	-18.07	-73.83	86.58	84.58	2.00	43.283		
600.00	598.77	593.67	593.40	1.27	1.19	-177.27	-18.25	-78.98	104.68	102.22	2.45	42.662 S	F	
700.00	697.08	690.93	690.53	1.62	1.42	-177.15	-18.43	-84.06	127.89	124.98	2.91	43.961		
800.00	794.31	786.84	786.31	2.04	1.64	-177.14	-18.61	-89.08	156.16	152.79	3.37	46.383		
900.00	890.18	881.14	880.48	2.56	1.87	-177.20	-18.79	-94.01	189.40	185.58	3.83	49.501		
966.67	953.21	942.98	942.24	2.97	2.02	-177.26	-18.90	-97.25	214.28	210.15	4.13	51.844		
1,000.00	984.53	973.68	972.90	3.19	2.09	-177.31	-18.96	-98.85	227.26	222.97	4.29	52.994		
1,100.00	1,078.50	1,065.79	1,064.88	3.85	2.31	-177.42	-19.13	-103.67	266.20	261.44	4.76	55.893		
1,200.00	1,172.47	1,157.90	1,156.86	4.53	2.54	-177.50	-19.30	-108.49	305.14	299.89	5.25	58.156		
1,300.00		1,250.00	1,248.84	5.22	2.76	-177.57	-19.47	-113.31	344.08	338.34	5.74	59.973		
1,400.00	1,360.41	1,342.11	1,340.82	5.91	2.99	-177.62	-19.64	-118.12	383.01	376.78	6.24	61.410		
1,500.00		1,434.22	1,432.80	6.61	3.21	-177.66	-19.81	-122.94	421.95	415.21	6.74	62.621		
1,600.00	1,548.35	1,526.32	1,524.78	7.31	3.44	-177.70	-19.98	-127.76	460.89	453.65	7.24	63.631		
1,700.00		1,618.43	1,616.76	8.01	3.66	-177.73	-20.15	-132.58	499.83	492.08	7.75	64.486		
1,800.00		1,710.54	1,708.74	8.71	3.89	-177.75	-20.32	-137.39	538.77	530.51	8.26	65.217		
1,900.00	1,830.26	1,802.65	1,800.72	9.42	4.11	-177.78	-20.49	-142.21	577.71	568.94	8.77	65.850		
2,000.00		1,894.75	1,892.70	10.13	4.34	-177.79	-20.66	-147.03	616.65	607.36	9.29	66.401		
2,100.00		1,986.86	1,984.69	10.83	4.56	-177.81	-20.83	-151.85	655.59	645.79	9.80	66.885		
2,200.00		2,078.97	2,076.67	11.54	4.79	-177.83	-21.01	-156.66	694.53	684.21	10.32	67.313		
2,300.00		2,149.58	2,147.13	12.25	4.97	-177.82	-21.17	-161.21	734.62	723.82	10.80	68.034		
2,400.00	2,300.10	2,214.64	2,211.86	12.96	5.15	-177.78	-21.40	-167.66	777.75	766.48	11.27	69.012		
2,500.00	2,394.07	2,277.60	2,274.27	13.67	5.34	-177.70	-21.69	-176.00	823.82	812.07	11.74	70.149		
2,600.00		2,338.44	2,334.27	14.38	5.54	-177.60	-22.04	-186.00	872.67	860.46	12.21	71.451		
2,700.00		2,400.00	2,394.64	15.09	5.76	-177.48	-22.47	-198.07	924.18	911.49	12.69	72.852		
2,800.00		2,453.69	2,446.94	15.80	5.98	-177.36	-22.90	-210.17	978.19	965.05	13.14	74.440		
2,900.00	2,769.95	2,500.00	2,491.77	16.51	6.17	-177.24	-23.31	-221.78	1,034.63	1,021.05	13.58	76.196		
3,000.00		2,560.49	2,549.88	17.22	6.45	-177.08	-23.90	-238.59	1,093.23		14.05	77.801		
3,100.00		2,600.00	2,587.52	17.93	6.64	-176.96	-24.33	-250.55	1,154.07	1,139.60	14.47	79.730		
3,200.00		2,659.25	2,643.51	18.64	6.95	-176.79	-25.01	-269.94	1,216.76		14.95	81.381		
3,300.00		2,736.23	2,715.84	19.35	7.40	-176.57	-25.94	-296.25	1,280.48	1,265.03	15.46	82.839		
3,400.00	3,239.80	2,813.20	2,788.17	20.06	7.85	-176.37	-26.87	-322.56	1,344.22	1,328.26	15.96	84.234		
3,500.00		2,890.18	2,860.50	20.77	8.32	-176.18	-27.80	-348.88	1,407.97	1,391.51	16.46	85.527		
3,600.00		2,967.15	2,932.83	21.48	8.80	-176.01	-28.73	-375.19	1,471.72		16.97	86.726		
3,700.00		3,044.12	3,005.17	22.19	9.28	-175.86	-29.66	-401.50	1,535.48		17.48	87.846		
3,800.00	3,615.67	3,121.10	3,077.50	22.90	9.78	-175.72	-30.59	-427.81	1,599.25		17.99	88.892		
3,900.00	3,709.64	3,198.07	3,149.83	23.62	10.28	-175.59	-31.52	-454.12	1,663.02	1,644.52	18.50	89.872		
4,000.00			3,222.16	24.33	10.79	-175.47	-32.46	-480.43	1,726.80		19.02	90.785		
4,100.00		3,352.02	3,294.49	25.04	11.30	-175.36	-33.39	-506.74	1,790.58		19.54	91.643		
4,200.00		3,428.99	3,366.82	25.75	11.82	-175.25	-34.32	-533.05	1,854.36		20.06	92.451		
4,300.00		3,505.97	3,439.15	26.46	12.34	-175.16	-35.25	-559.36	1,918.15		20.58	93.211		
4,370.34	4,151.61	3,560.11	3,490.03	26.96	12.71	-175.09	-35.90	-577.87	1,963.02	1,942.07	20.95	93.717		
4,400.00	4,179.54	3,583.04	3,511.58	27.15	12.87	-175.11	-36.18	-585.70	1,981.82	1,960.69	21.13	93.779		
4,500.00	4,274.42	3,661.73	3,585.53	27.68	13.41	-175.14	-37.13	-612.60	2,043.46	2,021.73	21.73	94.026		
4,600.00	4,370.34	3,742.52	3,661.44	28.15	13.96	-175.17	-38.11	-640.22	2,102.32		22.31	94.228		
4,700.00		3,825.29	3,739.22	28.58	14.54	-175.18	-39.11	-668.51	2,158.34		22.87	94.392		
4,800.00	4,564.85	3,909.94	3,818.77	28.95	15.12	-175.18	-40.13	-697.44	2,211.45	2,188.05	23.40	94.523		
4,900.00	4,663.20	3,996.38	3,899.99	29.27	15.73	-175.16	-41.17	-726.99	2,261.59	2,237.69	23.90	94.628		



Weatherford International Ltd.

Anticollision Report

Database:



Company: ANADARKO PETROLEUM CORP. Project: UINTAH COUNTY, UTAH (nad 27)

Bonanza 1023-5M PAD Reference Site:

Site Error: 0.00ft

Reference Well: BONANZA 1023-5N4AS

Well Error: 0.00ft

Reference Wellbore BONANZA 1023-5N4AS

Reference Design: PLAN #1 4-27-10 RHS

Local Co-ordinate Reference:

TVD Reference:

MD Reference: North Reference: Well BONANZA 1023-5N4AS

WELL @ 5309.00ft (Original Well Elev) WELL @ 5309.00ft (Original Well Elev)

True

Survey Calculation Method: Minimum Curvature

2.00 sigma Output errors are at

EDM 2003.21 Single User Db

Offset TVD Reference: Offset Datum

Offset D			za 1023-	5M PAD -	BONAN	IZA 1023-5	M3CS - BON	ANZA 102	23-5M3C	S - PLAN	#1 4-27-1	0 RHS	Offset Site Error:	0.00 ft
Survey Pro Refer	ogram: 0-M rence	IWD Offs	et	Semi Major	r Axis				Dista	ance			Offset Well Error:	0.00 f
Measured Depth (ft)		Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbor +N/-S (ft)	e Centre +E/-W (ft)		Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning	
5,000.00	4,762.12	4,084.49	3,982.79	29.55	16.34	-175.14	-42.24	-757.11	2,308.69	2,284.32	24.38	94.711		
5,100.00	4,861.49	4,174.17	4,067.06	29.77	16.97	-175.11	-43.32	-787.76	2,352.71	2,327.89	24.82	94.776		
5,200.00	4,961.19	4,265.31	4,152.71	29.94	17.62	-175.06	-44.42	-818.91	2,393.59	2,368.35	25.24	94.827		
5,300.00	5,061.10	4,645.71	4,516.43	30.06	19.56	-174.70	-48.33	-929.32	2,427.96	2,401.63	26.34	92.190		
5,370.34	5,131.43	5,077.66	4,942.89	30.12	20.83	-100.96	-50.66	-995.34	2,439.48	2,412.17	27.31	89.329		
5,400.00	5,161.09	5,264.68	5,129.67	30.15	21.11	-100.93	-50.96	-1,003.87	2,440.82	2,413.14	27.68	88.183		
5,500.00	5,261.09	5,396.10	5,261.09	30.23	21.25	-100.92	-50.97	-1,004.12	2,440.86	2,412.81	28.05	87.013		
5,600.00	5,361.09	5,496.10	5,361.09	30.31	21.37	-100.92	-50.97	-1,004.12	2,440.86	2,412.48	28.38	86.021		
5,700.00		5,596.10	5,461.09	30.39	21.48	-100.92	-50.97	-1,004.12	2,440.86		28.70	85.041		
5,800.00	-	5,696.10	5,561.09	30.48	21.60	-100.92	-50.97	-1,004.12	2,440.86		29.03	84.073		
5,900.00		5,796.10	5,661.09	30.56	21.71	-100.92	-50.97	-1,004.12	2,440.86		29.37	83.118		
6,000.00	5,761.09	5,896.10	5,761.09	30.65	21.83	-100.92	-50.97	-1,004.12	2,440.86	2,411.16	29.70	82.177		
6,100.00	5,861.09	5,996.10	5,861.09	30.74	21.96	-100.92	-50.97	-1,004.12	2,440.86	2,410.82	30.04	81.248		
6,200.00		6,096.10	5,961.09	30.83	22.08	-100.92	-50.97	-1,004.12	2,440.86		30.38	80.333		
6,300.00	-	6,196.10	6,061.09	30.93	22.20	-100.92	-50.97	-1,004.12	2,440.86		30.73	79.431		
6,400.00		6,296.10	6,161.09	31.02	22.33	-100.92	-50.97	-1,004.12	2,440.86		31.08	78.543		
6,500.00	6,261.09	6,396.10	6,261.09	31.11	22.46	-100.92	-50.97	-1,004.12	2,440.86	2,409.43	31.43	77.668		
6,600.00		6,496.10	6,361.09	31.21	22.59	-100.92	-50.97	-1,004.12	2,440.86	2,409.08	31.78	76.806		
6,700.00		6,596.10	6,461.09	31.31	22.72	-100.92	-50.97	-1,004.12	2,440.86		32.13	75.958		
6,800.00		6,696.10	6,561.09	31.41	22.85	-100.92	-50.97	-1,004.12	2,440.86	2,408.37	32.49	75.122		
6,900.00		6,796.10	6,661.09	31.51	22.98	-100.92	-50.97	-1,004.12	2,440.86	2,408.01	32.85	74.300		
7,000.00		6,896.10	6,761.09	31.61	23.12	-100.92	-50.97	-1,004.12	2,440.86		33.21	73.491		
7,100.00	-	6,996.10	6,861.09	31.71	23.25	-100.92	-50.97	-1,004.12	2,440.86		33.58	72.694		
7,200.00	-	7,096.10	6,961.09	31.82	23.39	-100.92	-50.97	-1,004.12	2,440.86		33.94	71.911		
7,300.00	-	7,196.10	7,061.09	31.92	23.53	-100.92	-50.97	-1,004.12	2,440.86	2,406.55	34.31	71.140		
7,400.00	7,161.09	7,296.10	7,161.09	32.03	23.67	-100.92	-50.97	-1,004.12	2,440.86	2,406.18	34.68	70.381		
7,500.00	7,261.09	7,396.10	7,261.09	32.14	23.81	-100.92	-50.97	-1,004.12	2,440.86	2,405.81	35.05	69.635		
7,600.00		7,496.10	7,361.09	32.25	23.95	-100.92	-50.97	-1,004.12	2,440.86	2,405.43	35.43	68.901		
7,700.00	7,461.09	7,596.10	7,461.09	32.36	24.10	-100.92	-50.97	-1,004.12	2,440.86	2,405.06	35.80	68.179		
7,800.00	7,561.09	7,696.10	7,561.09	32.47	24.24	-100.92	-50.97	-1,004.12	2,440.86	2,404.68	36.18	67.469		
7,900.00	7,661.09	7,796.10	7,661.09	32.58	24.39	-100.92	-50.97	-1,004.12	2,440.86	2,404.30	36.56	66.771		
8,000.00	7,761.09	7,896.10	7,761.09	32.69	24.54	-100.92	-50.97	-1,004.12	2,440.86	2,403.92	36.94	66.084		
8,100.00	7,861.09	7,996.10	7,861.09	32.81	24.69	-100.92	-50.97	-1,004.12	2,440.86	2,403.54	37.32	65.408		
8,200.00	7,961.09	8,096.10	7,961.09	32.92	24.84	-100.92	-50.97	-1,004.12	2,440.86	2,403.16	37.70	64.744		
8,300.00	8,061.09	8,196.10	8,061.09	33.04	24.99	-100.92	-50.97	-1,004.12	2,440.86	2,402.78	38.08	64.090		
8,400.00	8,161.09	8,296.10	8,161.09	33.16	25.14	-100.92	-50.97	-1,004.12	2,440.86		38.47	63.448		
8,500.00	8,261.09	8,396.10	8,261.09	33.28	25.29	-100.92	-50.97	-1,004.12	2,440.86	2,402.00	38.86	62.815		
8,600.00	8,361.09	8,496.10	8,361.09	33.40	25.45	-100.92	-50.97	-1,004.12	2,440.86	2,401.61	39.25	62.194		
8.627.91	-	8,524.00	8,389.00	33.43	25.49	-100.92	-50.97	-1,004.12	2,440.86		39.35	62.022		



Weatherford International Ltd.

Anticollision Report



Company: ANADARKO PETROLEUM CORP.

Project: UINTAH COUNTY, UTAH (nad 27)
Reference Site: Bonanza 1023-5M PAD

Site Error: 0.00ft

Reference Well: BONANZA 1023-5N4AS

Well Error: 0.00ft

Reference Wellbore BONANZA 1023-5N4AS

Reference Design: PLAN #1 4-27-10 RHS

0.00ft

TVD Reference: MD Reference: North Reference:

Local Co-ordinate Reference:

Well BONANZA 1023-5N4AS

WELL @ 5309.00ft (Original Well Elev) WELL @ 5309.00ft (Original Well Elev)

Reference: True

Survey Calculation Method: Minimum Curvature

Output errors are at 2.00 sigma

Database: EDM 2003.21 Single User Db

Offset TVD Reference: Offset Datum

Offset D			za 1023-	5M PAD -	BONAN	ZA 1023-5	N3CS - BON	ANZA 10	23-5N3CS	S - PLAN	#1 4-27-1	0 RHS	Offset Site Error:	0.00 ft
Survey Pro Refer	gram: 0-M ence	IWD Offs	et	Semi Major	Axis				Dist	ance			Offset Well Error:	0.00 ft
leasured Depth	Depth	Measured Depth	Vertical Depth	Reference		Highside Toolface	Offset Wellbor	+E/-W	Between Centres	Ellipses	Separation	Separation Factor	Warning	
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)			
0.00	0.00	0.00	0.00	0.00	0.00	-104.77	-5.10	-19.34	20.00		0.40	100 155		
100.00	100.00	100.00	100.00	0.10	0.10	-104.77	-5.10 5.10	-19.34	20.00		0.19	103.455		
200.00 300.00	200.00 300.00	200.00 300.93	200.00 300.88	0.32 0.55	0.32 0.54	-104.77 -106.91	-5.10 -5.07	-19.34 -16.67	20.00 17.45		0.64 1.09	31.109 16.061		
400.00	399.95	401.52	401.15	0.77	0.79	169.53	-4.97	-8.72	12.65			8.240		
500.00	499.63	501.79	500.54	1.00	1.07	142.29	-4.81	4.46	9.62		2.04	4.717		
520.85	520.36	522.66	521.13	1.06	1.15	134.23	-4.77	7.85	9.50			4.3710		
600.00	598.77 697.08	601.71	598.75	1.27	1.43	105.25	-4.60 4.33	22.75	11.26		2.70	4.165 \$	or .	
700.00 800.00	794.31	701.28 801.03	695.56 792.04	1.62 2.04	1.88 2.38	85.09 83.62	-4.32 -4.02	46.03 71.32	17.30 24.27	13.85 19.95	3.45 4.33	5.021 5.610		
900.00	890.18	900.70	888.45	2.56	2.89	92.36	-3.72	96.59	31.05		5.41	5.740		
000.00	000.10	0000	000.10	2.00	2.00	02.00	02	00.00	01.00	20.01	0	00		
966.67	953.21	966.96	952.56	2.97	3.24	100.79	-3.51	113.39	36.29			5.875		
1,000.00	984.53	1,000.04	984.56	3.19	3.41	105.00	-3.41	121.77	39.30		6.55	6.003		
1,100.00	1,078.50	1,099.29	1,080.56	3.85	3.94	114.36	-3.11	146.93	49.27		7.58	6.499		
1,200.00	1,172.47	1,198.53	1,176.56	4.53	4.46	120.47	-2.81	172.09	60.10		8.55	7.027		
1,300.00	1,266.44	1,297.77	1,272.56	5.22	4.99	124.69	-2.51	197.25	71.40	61.90	9.50	7.516		
1,400.00	1,360.41	1,397.02	1,368.56	5.91	5.52	127.75	-2.21	222.41	82.98	72.55	10.44	7.952		
1,500.00	1,454.38	1,496.26	1,464.56	6.61	6.05	130.05	-1.91	247.57	94.74	83.37	11.37	8.335		
1,600.00	1,548.35	1,595.50	1,560.56	7.31	6.59	131.85	-1.61	272.73	106.61	94.32	12.30	8.670		
1,700.00	1,642.32	1,694.75	1,656.56	8.01	7.12	133.28	-1.31	297.89	118.57	105.34	13.23	8.965		
1,800.00	1,736.29	1,793.99	1,752.56	8.71	7.65	134.45	-1.01	323.05	130.59	116.43	14.16	9.225		
1,900.00	1.830.26	1,893.23	1,848.56	9.42	8.19	135.42	-0.71	348.21	142.65	127.56	15.09	9.455		
2,000.00	1,924.23	1,992.48	1,944.56	10.13	8.72	136.24	-0.41	373.37	154.74			9.661		
2,100.00	2,018.20	2,091.72		10.83	9.25	136.95	-0.11	398.53	166.86		16.95	9.845		
2,200.00	2,112.16	2,190.92	2,136.52	11.54	9.79	137.55	0.19	423.67	179.00	161.13	17.88	10.012		
2,300.00	2,206.13	2,287.06	2,229.88	12.25	10.18	138.44	0.46	446.63	191.99	173.37	18.62	10.310		
2,400.00	2,300.10	2,382.59	2,323.27	12.96	10.53	139.85	0.70	466.72	206.66	187.44	19.23	10.749		
2,500.00	2,394.07	2,477.34	2,416.43	13.67	10.84	141.66	0.91	483.94	223.15		19.70	11.326		
2,600.00	2,488.04	2,571.16	2,509.15	14.38	11.12	143.72	1.08	498.33	241.60		20.07	12.041		
2,700.00	2,582.01	2,663.93	2,601.18	15.09	11.36	145.93	1.22	509.95	262.16	241.83	20.33	12.894		
2,800.00	2,675.98	2,755.50	2,692.31	15.80	11.56	148.20	1.33	518.85	284.95	264.42	20.52	13.883		
2,900.00	2,769.95	2,845.76	2,782.36	16.51	11.73	150.46	1.40	525.12	310.05	289.40	20.66	15.009		
3,000.00	2,863.92	2,934.61	2,871.12	17.22	11.86	152.65	1.45	528.88	337.55		20.76	16.263		
3,100.00	2,957.89	3,021.96	2,958.45	17.93	11.97	154.76	1.46	530.22	367.46		20.83	17.637		
3,200.00	3,051.86	3,115.36	3,051.86	18.64	12.07	156.82	1.46	530.22	398.96		20.91	19.081		
3,300.00	3,145.83	3,209.33	3,145.83	19.35	12.18	158.60	1.46	530.22	430.88		21.04	20.476		
2 400 00	2 220 00	2 202 20	2 220 00	20.00	10.00	160 10	4.46	E20 20	460.40	444.00	24.00	24 047		
3,400.00	3,239.80 3,333.76	3,303.30	3,239.80	20.06 20.77	12.29 12.41	160.13	1.46 1.46	530.22 530.22	463.13 495.64		21.23 21.46	21.817		
3,500.00 3,600.00	3,333.76	3,397.27 3,491.24	3,333.76 3,427.73	20.77	12.41	161.47 162.64	1.46 1.46	530.22	495.64 528.36	474.18 506.64	21.46	23.100 24.327		
3,700.00		3,585.21		21.46	12.52	162.64	1.46	530.22	561.26		22.01	24.327 25.498		
	3,615.67			22.19	12.76	164.60	1.46	530.22	594.30		22.33	26.615		
3,900.00	3,709.64	3,773.15		23.62	12.89	165.43	1.46	530.22	627.47		22.67	27.679		
4,000.00	3,803.61		3,803.61	24.33	13.01	166.17	1.46	530.22	660.75			28.694		
4,100.00	3,897.58	3,961.08	3,897.58	25.04 25.75	13.14	166.84 167.46	1.46	530.22	694.11		23.40	29.660		
4,200.00 4,300.00	3,991.55 4,085.52	4,055.05 4,149.02	3,991.55 4,085.52	25.75 26.46	13.27 13.40	167.46 168.01	1.46 1.46	530.22 530.22	727.55 761.06		23.79 24.19	30.582 31.461		
4,370.34	4,151.61	4,215.12	4,151.61	26.96	13.49	168.38	1.46	530.22	784.67	760.19	24.48	32.056		
4,400.00	4,179.54	4,243.04	4,179.54	27.15	13.54	168.56	1.46	530.22	794.49		24.61	32.290		
4,500.00	4,274.42	4,337.92	4,274.42	27.68	13.67	169.12	1.46	530.22	825.53		25.00	33.021		
4,600.00 4,700.00	4,370.34 4,467.19	4,433.85 4,530.70	4,370.34	28.15	13.81	169.58 169.97	1.46 1.46	530.22 530.22	853.32 877.83		25.38 25.74	33.621 34.101		
4,700.00	4,407.19	4,030.70	4,467.19	28.58	13.96	169.97	1.46	530.22	011.03	002.09	25.74	34.101		
4,800.00	4,564.85	4,628.36	4,564.85	28.95	14.10	170.28	1.46	530.22	899.01	872.93	26.08	34.470		



Weatherford International Ltd.

Anticollision Report

TVD Reference:

MD Reference:



Company: ANADARKO PETROLEUM CORP.
Project: UINTAH COUNTY, UTAH (nad 27)

Reference Site: Bonanza 1023-5M PAD

Site Error: 0.00ft

Reference Well: BONANZA 1023-5N4AS

Well Error: 0.00ft

Reference Wellbore BONANZA 1023-5N4AS

Reference Design: PLAN #1 4-27-10 RHS

Local Co-ordinate Reference:

Well BONANZA 1023-5N4AS

WELL @ 5309.00ft (Original Well Elev) WELL @ 5309.00ft (Original Well Elev)

North Reference: True

Survey Calculation Method: Minimum Curvature

Output errors are at 2.00 sigma

Database: EDM 2003.21 Single User Db

Offset TVD Reference: Offset Datum

Offset D Survey Pro	esign gram: 0-M		za 1023-	OIVI PAD -	BONAN	ZA 1023-5	SN3CS - BON	ANZA 102	23-5N3CS	- PLAN	#14-27-1	U KHS	Offset Site Error: Offset Well Error:	0.00 f
Refer	_	Offs	et	Semi Major	Axis				Dista	ance				
leasured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbor +N/-S (ft)	re Centre +E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)		Warning	
4,900.00	4,663.20	4,726.71	4,663.20	29.27	14.25	170.53	1.46	530.22	916.83	890.44	26.39	34.738		
5,000.00	4,762.12	4,825.63	4,762.12	29.55	14.41	170.72	1.46	530.22	931.26	904.58	26.68	34.910		
5,100.00	4,861.49	4,925.00	4,861.49	29.77	14.56	170.72	1.46	530.22	942.27	915.35	26.93	34.992		
5,200.00	4,961.19	5,024.70	4,961.19	29.94	14.72	170.97	1.46	530.22	949.86	922.71	27.15	34.989		
5,300.00	5,061.10	5,124.60	5,061.10	30.06	14.88	171.02	1.46	530.22	954.01	926.68	27.33	34.902		
5,370.34	5,131.43	5,194.93	5,131.43	30.12	14.99	-115.44	1.46	530.22	954.86	927.41	27.45	34.788		
5,400.00	5,161.09	5,224.60	5,161.09	30.15	15.04	-115.44	1.46	530.22	954.86	927.32	27.55	34.663		
5,500.00	5,261.09	5,324.60	5,261.09	30.23	15.20	-115.44	1.46	530.22	954.86	926.97	27.89	34.238		
5,600.00	5,361.09	5,424.60	5,361.09	30.31	15.37	-115.44	1.46	530.22	954.86	926.63	28.23	33.820		
5,700.00	5,461.09	5,524.60	5,461.09	30.39	15.54	-115.44	1.46	530.22	954.86	926.28	28.58	33.409		
5,800.00	5,561.09	5,624.60	5,561.09	30.48	15.70	-115.44	1.46	530.22	954.86	925.93	28.93	33.005		
5,900.00	5,661.09	5,724.60	5,661.09	30.56	15.87	-115.44	1.46	530.22	954.86	925.58	29.28	32.608		
6,000.00	5,761.09	5,824.60	5,761.09	30.65	16.04	-115.44	1.46	530.22	954.86	925.22	29.64	32.217		
6,100.00	5,861.09	5,924.60	5,861.09	30.74	16.21	-115.44	1.46	530.22	954.86	924.87	30.00	31.833		
6,200.00	5,961.09	6,024.60	5,961.09	30.83	16.39	-115.44	1.46	530.22	954.86	924.51	30.36	31.456		
6,300.00	6,061.09	6,124.60	6,061.09	30.93	16.56	-115.44	1.46	530.22	954.86	924.14	30.72	31.085		
6,400.00	6,161.09	6,224.60	6,161.09	31.02	16.74	-115.44	1.46	530.22	954.86	923.78	31.08	30.721		
6,500.00	6,261.09	6,324.60	6,261.09	31.11	16.91	-115.44	1.46	530.22	954.86	923.41	31.45	30.363		
6,600.00	6,361.09	6,424.60	6,361.09	31.21	17.09	-115.44	1.46	530.22	954.86	923.05	31.82	30.012		
6,700.00	6,461.09	6,524.60	6,461.09	31.31	17.27	-115.44	1.46	530.22	954.86	922.68	32.19	29.666		
6,800.00	6,561.09	6,624.60	6,561.09	31.41	17.45	-115.44	1.46	530.22	954.86	922.30	32.56	29.327		
6,900.00	6,661.09	6,724.60	6,661.09	31.51	17.63	-115.44	1.46	530.22	954.86	921.93	32.93	28.994		
7,000.00	6,761.09	6,824.60	6,761.09	31.61	17.81	-115.44	1.46	530.22	954.86	921.55	33.31	28.667		
7,100.00	6,861.09	6,924.60	6,861.09	31.71	17.99	-115.44	1.46	530.22	954.86	921.18	33.69	28.346		
7,200.00	6,961.09	7,024.60	6,961.09	31.82	18.18	-115.44	1.46	530.22	954.86	920.80	34.06	28.031		
7,300.00	7,061.09	7,124.60	7,061.09	31.92	18.36	-115.44	1.46	530.22	954.86	920.42	34.45	27.721		
7,400.00	7,161.09	7,224.60	7,161.09	32.03	18.55	-115.44	1.46	530.22	954.86	920.03	34.83	27.417		
7,500.00	7,261.09	7,324.60	7,261.09	32.14	18.74	-115.44	1.46	530.22	954.86	919.65	35.21	27.118		
7,600.00	7,361.09	7,424.60	7,361.09	32.25	18.92	-115.44	1.46	530.22	954.86	919.27	35.60	26.824		
7,700.00	7,461.09	7,524.60	7,461.09	32.36	19.11	-115.44	1.46	530.22	954.86	918.88	35.98	26.536		
7,800.00	7,561.09	7,624.60	7,561.09	32.47	19.30	-115.44	1.46	530.22	954.86	918.49	36.37	26.253		
7,900.00	7,661.09	7,724.60	7,661.09	32.58	19.49	-115.44	1.46	530.22	954.86	918.10	36.76	25.975		
8,000.00	7,761.09	7,824.60	7,761.09	32.69	19.68	-115.44	1.46	530.22	954.86	917.71	37.15	25.702		
8,100.00	7,861.09	7,924.60	7,861.09	32.81	19.87	-115.44	1.46	530.22	954.86	917.32	37.54	25.433		
8,200.00	7,961.09	8,024.60	7,961.09	32.92	20.06	-115.44	1.46	530.22	954.86	916.93	37.94	25.170		
8,300.00	8,061.09	8,124.60	8,061.09	33.04	20.26	-115.44	1.46	530.22	954.86	916.53	38.33	24.911		
8,400.00	8,161.09	8,224.60	8,161.09	33.16	20.45	-115.44	1.46	530.22	954.86	916.14	38.73	24.656		
8,500.00	8,261.09	8,324.60	8,261.09	33.28	20.64	-115.44	1.46	530.22	954.86	915.74	39.12			
8,600.00	8,361.09	8,424.60	8,361.09	33.40	20.84	-115.44	1.46	530.22	954.86	915.34	39.52			
8,627.91	8,389.00	8,452.50	8,389.00	33.43	20.89	-115.44	1.46	530.22	954.86	915.23	39.63	24.093		



Weatherford International Ltd.

Anticollision Report

TVD Reference:

MD Reference:



Company: ANADARKO PETROLEUM CORP. Project: UINTAH COUNTY, UTAH (nad 27)

Bonanza 1023-5M PAD Reference Site:

Site Error: 0.00ft

Reference Well: BONANZA 1023-5N4AS

Well Error: 0.00ft

Reference Wellbore BONANZA 1023-5N4AS

Reference Design: PLAN #1 4-27-10 RHS

Local Co-ordinate Reference:

Well BONANZA 1023-5N4AS

WELL @ 5309.00ft (Original Well Elev) WELL @ 5309.00ft (Original Well Elev)

North Reference: True

Survey Calculation Method: Minimum Curvature

2.00 sigma Output errors are at

Database: EDM 2003.21 Single User Db

Offset TVD Reference: Offset Datum

Offset De	esign	Bonan	za 1023-	5M PAD -	BONAN	ZA 1023-8	C2DS - BONA	ANZA 102	23-8C2DS	- PLAN	#1 4-27-1	0 RHS	Offset Site Error:	0.00 ft
Survey Prog													Offset Well Error:	0.00 ft
Refere		Offs		Semi Majo		I II a b a l al a	0#	. 0		ance		0		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore +N/-S (ft)	e Centre +E/-W (ft)	Between Centres (ft)		Minimum Separation (ft)	Separation Factor	Warning	
0.00	0.00	0.00	0.00	0.00	0.00	-104.70	-7.65	-29.15	30.13					
100.00	100.00	100.00	100.00	0.10	0.10	-104.70	-7.65	-29.15	30.13		0.19	155.884		
200.00	200.00	200.00	200.00	0.32	0.32	-104.70	-7.65	-29.15	30.13		0.64	46.874		
300.00	300.00	300.00	300.00	0.55	0.55	-104.70	-7.65	-29.15	30.13		1.09	27.584	CC, ES	
400.00	399.95	400.47	400.45	0.77	0.75	178.85	-8.92	-27.93	31.94	30.42		20.981	0.5	
500.00	499.63	500.44	500.31	1.00	0.96	172.53	-12.40	-24.61	37.90		1.95	19.401	SF	
600.00 700.00	598.77 697.08	599.75 698.37	599.48 697.96	1.27 1.62	1.17 1.40	168.71 167.34	-16.16 -19.89	-21.02 -17.46	49.19	46.78 62.76	2.41 2.89	20.370 22.704		
800.00	794.31	796.02	795.48	2.04	1.63	167.34	-23.58	-17.40	65.66 87.15		3.38	25.785		
900.00	890.18	892.44	891.76	2.56	1.86	167.25	-27.23	-10.44	113.61		3.88	29.307		
966.67	953.21	955.90	955.14	2.97	2.01	168.12	-29.64	-8.15	133.98	129.77	4.21	31.817		
1,000.00	984.53	987.46	986.65	3.19	2.08	168.39	-30.83	-7.01	144.71	140.33	4.38	33.032		
1,100.00	1,078.50	1,082.12	1,081.18	3.85	2.31	168.99	-34.41	-3.59	176.91	172.01	4.90	36.105		
1,200.00	1,172.47	1,176.78	1,175.71	4.53	2.54	169.41	-38.00	-0.16	209.13		5.43	38.522		
1,300.00 1,400.00	1,266.44 1,360.41	1,271.43 1,366.09	1,270.24 1,364.77	5.22 5.91	2.77 3.00	169.71 169.95	-41.58 -45.16	3.26 6.68	241.35 273.58	235.39 267.07	5.96 6.51	40.462 42.049		
1,500.00	1,454.38	1,460.75	1,459.30	6.61	3.23	170.13	-48.74	10.10	305.81	298.76	7.05	43.370		
1,600.00	1,548.35	1,555.41		7.31	3.47	170.28	-52.33	13.52	338.05		7.60	44.481		
1,700.00	1,642.32	1,650.07	1,648.36	8.01	3.70	170.41	-55.91	16.94	370.28	362.13	8.15	45.428		
1,800.00	1,736.29	1,744.73	1,742.89	8.71	3.93	170.51	-59.49	20.36	402.52	393.81	8.70	46.245		
1,900.00	1,830.26	1,839.39	1,837.42	9.42	4.16	170.60	-63.08	23.79	434.76	425.50	9.26	46.955		
2,000.00	1,924.23	1,934.05	1,931.95	10.13	4.39	170.67	-66.66	27.21	467.00	457.18	9.82	47.579		
2,100.00	2,018.20	2,028.71	2,026.47	10.83	4.63	170.74	-70.24	30.63	499.24	488.86	10.37	48.130		
2,200.00	2,112.16	2,130.22	2,127.74	11.54	4.89	170.63	-75.23	35.39	531.02	520.05	10.97	48.422		
2,300.00	2,206.13	2,234.67	2,231.43	12.25	5.20	169.98	-84.31	44.07	561.24	549.61	11.63	48.251		
2,400.00	2,300.10	2,339.32	2,334.46	12.96	5.56	168.84	-97.51	56.67	589.99	577.61	12.38	47.649		
2,500.00	2,394.07	2,443.54	2,435.92	13.67	5.98	167.30	-114.69	73.07	617.49	604.26	13.23	46.659		
2,600.00	2,488.04	2,546.71	2,534.94	14.38	6.45	165.42	-135.61	93.05	644.07	629.87	14.20	45.362		
2,700.00	2,582.01	2,641.68	2,625.20	15.09	6.95	163.57	-156.96	113.44	670.53	655.32	15.22	44.067		
2,800.00	2,675.98	2,735.85	2,714.69	15.80	7.46	161.87	-178.16	133.68	697.61	681.34	16.27	42.886		
2,900.00		2,830.02		16.51	7.98	160.30	-199.35	153.92	725.24	707.89	17.35	41.808		
3,000.00	2,863.92	2,924.19	2,893.68	17.22	8.52	158.83	-220.55	174.16	753.36		18.45	40.830		
3,100.00	2,957.89	3,018.36	2,983.18	17.93	9.07	157.47	-241.74	194.39	781.91	762.34	19.57	39.946		
3,200.00	3,051.86	3,112.53	3,072.67	18.64	9.63	156.20	-262.94	214.63	810.86		20.71	39.149		
3,300.00 3,400.00	3,145.83 3,239.80	3,206.70 3,300.87	3,162.17 3,251.66	19.35 20.06	10.19 10.76	155.02 153.91	-284.13 -305.33	234.87 255.11	840.16 869.77	818.29 846.74	21.86 23.02	38.429 37.780		
3,500.00	3,333.76	3,395.04	3,341.15	20.77	11.34	152.88	-326.52	275.35	899.66	875.47	24.19	37.192		
3,600.00	3,427.73	3,489.21	3,430.65	21.48	11.92	151.91	-347.71	295.59	929.81	904.45	25.36	36.660		
3,700.00	3,521.70	3,583.38	3,520.14	22.19	12.50	151.00	-368.91	315.83	960.19	933.65	26.54	36.178		
	3,615.67 3,709.64	3,677.55 3,771.72		22.90 23.62	13.09 13.68	150.15 149.34	-390.10 -411.30	336.06 356.30	990.79 1,021.57	963.06 992.67	27.72 28.91	35.740 35.340		
4,000.00	3,803.61	3,865.89	3,788.63	24.33	14.27	148.59	-432.49	376.54		1,022.44	30.09	34.976		
4,100.00	3,897.58	3,960.06	3,878.12	25.04	14.87	147.87	-453.69	396.78	1,083.65		31.28	34.643		
4,200.00	3,991.55	4,054.23	3,967.62	25.75	15.46	147.20	-474.88	417.02		1,082.45	32.47	34.337		
4,300.00	4,085.52	4,148.40	4,057.11	26.46	16.06	146.56	-496.08	437.26		1,112.66	33.66	34.057		
4,370.34	4,151.61	4,214.64	4,120.06	26.96	16.48	146.13	-510.98	451.49		1,133.99		33.873		
4,400.00	4,179.54	4,242.60	4,146.63	27.15	16.66	146.05	-517.28	457.50	1,177.73	1,142.87	34.85	33.792		
4,500.00	4,274.42	4,337.26	4,236.59	27.68	17.26	145.75	-538.58	477.85		1,171.19	35.99	33.538		
4,600.00	4,370.34	4,432.44	4,327.05	28.15	17.87	145.35	-560.00	498.30	1,234.03	1,196.91	37.12	33.243		
4,700.00	4,467.19	4,528.02		28.58	18.49	144.87	-581.52	518.84	1,258.31	1,220.08	38.23	32.916		
4,800.00	4,564.85	4,623.93	4,509.02	28.95	19.10	144.29	-603.10	539.46	1,280.05	1,240.74	39.31	32.564		
4,900.00	4,663.20	4,727.22	4,607.75	29.27	19.63	143.64	-625.05	560.41	1,299.03	1,258.75	40.28	32.251		



Weatherford International Ltd.

Anticollision Report



Company: ANADARKO PETROLEUM CORP. Project: UINTAH COUNTY, UTAH (nad 27)

Bonanza 1023-5M PAD Reference Site:

Site Error: 0.00ft

Reference Well: BONANZA 1023-5N4AS

Well Error: 0.00ft

Reference Wellbore BONANZA 1023-5N4AS

Reference Design: PLAN #1 4-27-10 RHS

Local Co-ordinate Reference:

TVD Reference:

MD Reference:

North Reference:

Survey Calculation Method: Output errors are at

Database:

Offset TVD Reference:

Well BONANZA 1023-5N4AS

WELL @ 5309.00ft (Original Well Elev)

WELL @ 5309.00ft (Original Well Elev)

True

Minimum Curvature

2.00 sigma

EDM 2003.21 Single User Db

Offset Datum

Offset D Survey Pro	esign gram: 0-M		za 1023-	5M PAD -	BONAN	ZA 1023-8	C2DS - BON	ANZA 102	23-8C2DS	S - PLAN	#1 4-27-1	0 RHS	Offset Site Error: Offset Well Error:	0.00 ft 0.00 ft
Refer		Offs	et	Semi Major	Axis				Dista	ance				
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbor +N/-S (ft)	e Centre +E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning	
5,000.00	4,762.12	4,832.20	4,709.15	29.55	20.07	143.04	-644.71	579.18	1,314.94	1,273.85	41.10	31.997		
5,100.00	4,861.49	4,938.70	4,812.95	29.77	20.47	142.48	-661.89	595.59	1,327.69	1,285.87	41.81	31.753		
5,200.00	4,961.19	5,046.51	4,918.87	29.94	20.82	141.96	-676.42	609.47	1,337.18	1,294.76	42.42	31.519		
5,300.00	5,061.10	5,155.42	5,026.55	30.06	21.12	141.47	-688.17	620.69	1,343.36	1,300.43	42.93	31.292		
5,370.34	5,131.43	5,232.55	5,103.16	30.12	21.31	-145.32	-694.70	626.92	1,345.68	1,302.45	43.22	31.135		
5,400.00	5,161.09	5,265.20	5,135.65	30.15	21.38	-145.45	-697.01	629.13	1,346.27	1,302.92	43.35	31.057		
5,500.00	5,261.09	5,375.72	5,245.86	30.23	21.58	-145.79	-702.85	634.71	1,347.78	1,304.05	43.73	30.820		
5,600.00	5,361.09	5,486.70	5,356.77	30.31	21.74	-145.94	-705.62	637.35	1,348.51	1,304.48	44.03	30.630		
5,700.00	5,461.09	5,591.03	5,461.09	30.39	21.85	-145.96	-705.85	637.57	1,348.57	1,304.32	44.26	30.472		
5,800.00	5,561.09	5,691.03	5,561.09	30.48	21.96	-145.96	-705.85	637.57	1,348.57	1,304.10	44.47	30.324		
5,900.00	5,661.09	5,791.03	5,661.09	30.56	22.06	-145.96	-705.85	637.57	1,348.57	1,303.88	44.69	30.175		
6,000.00	5,761.09	5,891.03	5,761.09	30.65	22.17	-145.96	-705.85	637.57	1,348.57	1,303.66	44.92	30.024		
6,100.00	5,861.09	5,991.03	5,861.09	30.74	22.28	-145.96	-705.85	637.57	1,348.57	1,303.43	45.14	29.874		
6,200.00	5,961.09	6,091.03	5,961.09	30.83	22.39	-145.96	-705.85	637.57	1,348.57	1,303.20	45.37	29.722		
6,300.00	6,061.09	6,191.03	6,061.09	30.93	22.50	-145.96	-705.85	637.57	1,348.57	1,302.97	45.61	29.570		
6,400.00	6,161.09	6,291.03	6,161.09	31.02	22.61	-145.96	-705.85	637.57	1,348.57	1,302.73	45.84	29.418		
6,500.00	6,261.09	6,391.03	6,261.09	31.11	22.73	-145.96	-705.85	637.57	1,348.57	1,302.49	46.08	29.264		
6,600.00	6.361.09	6.491.03	6.361.09	31.21	22.85	-145.96	-705.85	637.57	1,348.57	1,302.25	46.33	29.111		
6,700.00	6,461.09	6,591.03	6,461.09	31.31	22.96	-145.96	-705.85	637.57	1,348.57	1,302.00	46.57	28.957		
6,800.00	6,561.09	6,691.03	6,561.09	31.41	23.08	-145.96	-705.85	637.57	1,348.57	1,301.75	46.82	28.803		
6,900.00	6,661.09	6,791.03	6,661.09	31.51	23.21	-145.96	-705.85	637.57	1,348.57	1,301.50	47.07	28.649		
7,000.00	6.761.09	6,891.03	6,761.09	31.61	23.33	-145.96	-705.85	637.57	1,348.57	1,301.25	47.33	28.495		
7,100.00	6,861.09	6,991.03	6,861.09	31.71	23.45	-145.96	-705.85	637.57	1,348.57	1,300.99	47.58	28.340		
7,100.00	6,961.09	7,091.03	6,961.09	31.82	23.58	-145.96	-705.85	637.57	1,348.57	1,300.99	47.85	28.186		
7,200.00			7,061.09	31.92	23.71	-145.96					48.11	28.032		
7,300.00	7,061.09 7,161.09	7,191.03 7,291.03	7,061.09	32.03	23.84	-145.96 -145.96	-705.85 -705.85	637.57 637.57	1,348.57 1,348.57	1,300.46 1,300.20	48.37	27.878		
7,500.00	7,261.09	7,391.03	7,261.09	32.14	23.97	-145.96	-705.85	637.57	1,348.57	1,299.93	48.64	27.724		
7,600.00	7,361.09	7,491.03	7,361.09	32.25	24.10	-145.96	-705.85	637.57	1,348.57	1,299.66	48.92	27.570		
7,700.00	7,461.09	7,591.03	7,461.09	32.36	24.23	-145.96	-705.85	637.57	1,348.57	1,299.38	49.19	27.416		
7,800.00 7,900.00	7,561.09 7,661.09	7,691.03 7,791.03	7,561.09 7,661.09	32.47 32.58	24.37 24.50	-145.96 -145.96	-705.85 -705.85	637.57 637.57	1,348.57 1,348.57	1,299.11 1,298.83	49.47 49.75	27.263 27.110		
									•	·				
8,000.00	7,761.09	7,891.03	7,761.09	32.69	24.64	-145.96	-705.85	637.57	1,348.57	1,298.55	50.03	26.957		
8,100.00	7,861.09	7,991.03	7,861.09	32.81	24.78	-145.96	-705.85	637.57	1,348.57	1,298.26	50.31	26.805		
8,200.00	7,961.09	8,091.03	7,961.09	32.92	24.92	-145.96	-705.85	637.57	1,348.57	1,297.98	50.60	26.653		
8,300.00	8,061.09	8,191.03	8,061.09	33.04	25.06	-145.96	-705.85	637.57	1,348.57	1,297.69	50.89	26.502		
8,400.00	8,161.09	8,291.03	8,161.09	33.16	25.20	-145.96	-705.85	637.57	1,348.57	1,297.40	51.18	26.351		
8,500.00	8,261.09	8,391.03	8,261.09	33.28	25.35	-145.96	-705.85	637.57	1,348.57	1,297.10	51.47	26.201		
8,600.00	8,361.09	8,491.03	8,361.09	33.40	25.49	-145.96	-705.85	637.57	1,348.57	1,296.81	51.77	26.051		
8,601.70	8,362.80	8,492.73	8,362.80	33.40	25.50	-145.96	-705.85	637.57	1,348.57	1,296.80	51.77	26.048		
8,627.91	8,389.00	8,500.93	8,371.00	33.43	25.51	-145.96	-705.85	637.57	1,348.69	1,296.87	51.82	26.025		



Weatherford International Ltd.

Anticollision Report



ANADARKO PETROLEUM CORP. Company:

Project: UINTAH COUNTY, UTAH (nad 27) Bonanza 1023-5M PAD

Reference Site: Site Error:

0.00ft

Reference Well:

BONANZA 1023-5N4AS

Well Error: 0.00ft

Reference Wellbore BONANZA 1023-5N4AS

Reference Design: PLAN #1 4-27-10 RHS

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Local Co-ordinate Reference:

Output errors are at

Database:

Offset TVD Reference:

Well BONANZA 1023-5N4AS

WELL @ 5309.00ft (Original Well Elev) WELL @ 5309.00ft (Original Well Elev)

True

Minimum Curvature

2.00 sigma

EDM 2003.21 Single User Db

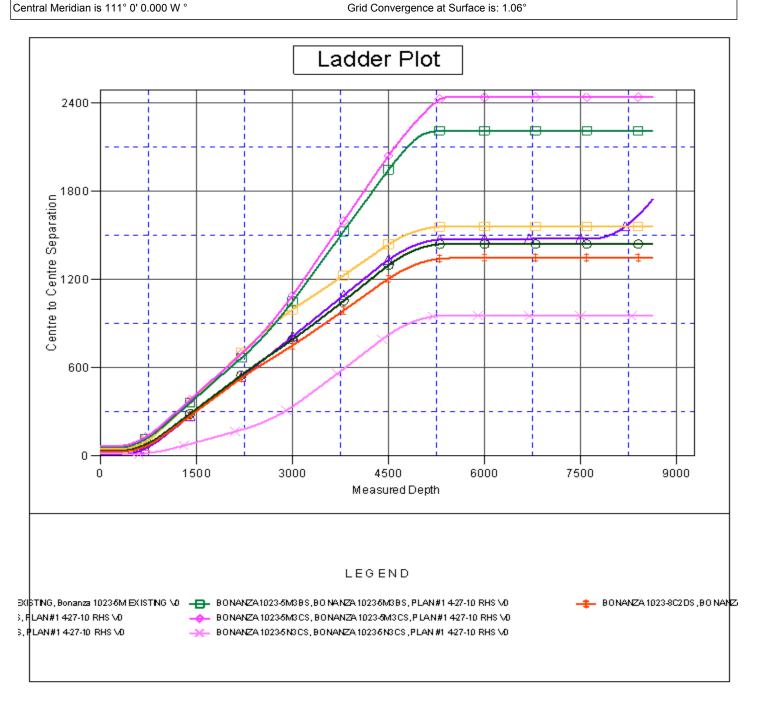
Offset Datum

Reference Depths are relative to WELL @ 5309.00ft (Original Well Ele\Coordinates are relative to: BONANZA 1023-5N4AS

Offset Depths are relative to Offset Datum

Coordinate System is Universal Transverse Mercator (US Survey Feet), Zone 12N

Grid Convergence at Surface is: 1.06°





Weatherford International Ltd.

Anticollision Report

MD Reference:



Company: ANADARKO PETROLEUM CORP. Project: UINTAH COUNTY, UTAH (nad 27)

Reference Site: Bonanza 1023-5M PAD

Site Error:

0.00ft

Reference Well:

BONANZA 1023-5N4AS

Well Error: 0.00ft

Reference Wellbore BONANZA 1023-5N4AS

Reference Design: PLAN #1 4-27-10 RHS

Local Co-ordinate Reference: TVD Reference:

Well BONANZA 1023-5N4AS

WELL @ 5309.00ft (Original Well Elev) WELL @ 5309.00ft (Original Well Elev)

North Reference:

Survey Calculation Method: Minimum Curvature

Output errors are at

2.00 sigma

EDM 2003.21 Single User Db Database:

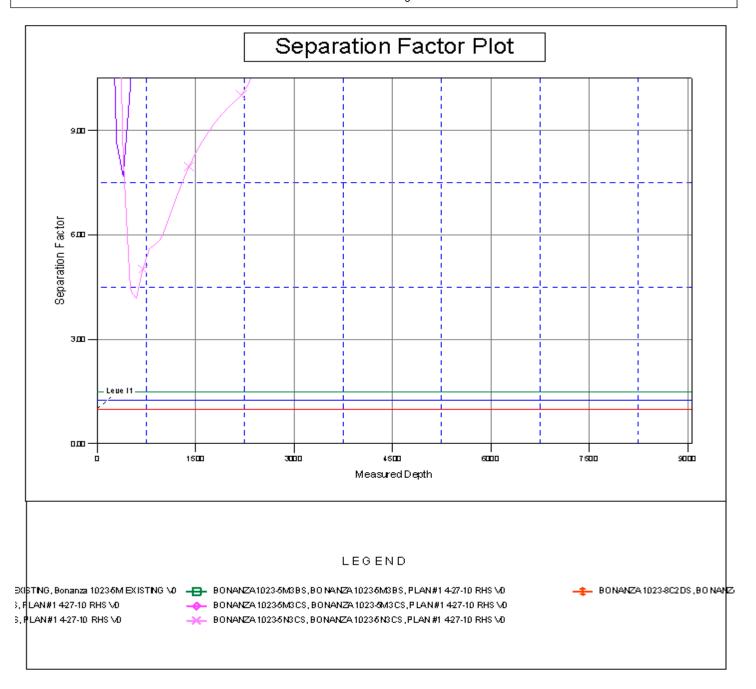
Offset TVD Reference: Offset Datum

Reference Depths are relative to WELL @ 5309.00ft (Original Well Ele\Coordinates are relative to: BONANZA 1023-5N4AS

Offset Depths are relative to Offset Datum

Coordinate System is Universal Transverse Mercator (US Survey Feet), Zone 12N

Central Meridian is 111° 0' 0.000 W ° Grid Convergence at Surface is: 1.06°



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Kerr-McGee Oil & Gas Onshore. L.P. Bonanza 1023-5M Pad

<u>API #</u>	BONANZA 1023-5M1AS		
04.14.00	e: 210 FSL / 1021 FWL	SWSW	Lot
BHI	.: 1133 FSL / 1100 FWL	SWSW	Lot
<u>API #</u>	BONANZA 1023-5M1CS		
	e: 208 FSL / 1011 FWL	SWSW	Lot
BHI	.: 800 FSL / 900 FWL	SWSW	Lot
<u>API #</u>	BONANZA 1023-5M3BS		
Surface	. 200:027:001:112	SWSW	Lot
BHI	.: 566 FSL / 240 FWL	SWSW	Lot
<u>API #</u>	BONANZA 1023-5M3CS		
	e: 203 FSL / 992 FWL	SWSW	Lot
BHI	.: 171 FSL / 55 FWL	SWSW	Lot
<u>API #</u>	BONANZA 1023-5N3CS		
	e: 215 FSL / 1040 FWL	SWSW	Lot
BHI	.: 221 FSL / 1590 FWL	SESW	Lot
<u>API #</u>	BONANZA 1023-5N4AS		
	e: 220 FSL / 1060 FWL	SWSW	Lot
BHI	.: 630 FSL / 2453 FWL	SESW	Lot
<u>API #</u>	BONANZA 1023-8C2DS		
Surface	e: 213 FSL / 1030 FWL	SWSW	Lot
BHI	.: 487 FNL / 1697 FWL	NENW	Lot

This Surface Use Plan of Operations (SUPO) or 13-point plan provides site-specific information for the above-referenced wells.

In accordance with Utah Oil & Gas Conservation Rule R649-3-11 pertaining to Directional Drilling, these wells will be directionally drilled. Refer to Topo Map A for directions to the location and Topo Maps A and B for location of access roads within a 2-mile radius.

An on-site meeting was held on May 19, 2010. Present were:

- David Gordon, NRS; Kevin Sadiler, NRS; Ryan Angus, PET Engineer; Steve Strong, Reclamation; Dan Emmett,
 Wildlife Biologist BLM;
- · John Slaugh, Mitch Batty, Brian Venn, Jacob Dunham, Jake Edmunds, B.J. Reenders 609 & Timberline Engineering & Land Surveying, Inc.
- Danielle Piernot and Kathy Schneebeck Dulnoan, Regulatory; Brad Burman, Completions; Clay Einerson,
 Construction; Grizz Oleen, Environmental; Charles Chase, Reclamation; Lovell Young, Drilling, Roger Parry and
 Ramey Hoopes, Construction

A. Existing Roads:

Existing roads consist of county and improved/unimproved access roads (two-tracks). In accordance with Onshore Order #1, Kerr-McGee will, in accordance with BMPs, improve or maintain existing roads in a condition

Bonanza 1023-5M1AS/ 1023-5M1CS/ 1023-5M3BS/ 1023-5M3CS Bonanza 1023-5N3CS/ 1023-5N4AS/ 1023-8C2DS Kerr-McGee Oil Gas Onshore, L.P. Bonanza 1023-5M Pad Surface Use Plan of Operations 2 of 15

that is the same as or better than before operations began. New or reconstructed proposed access roads are discussed in Section B.

The existing roads will be maintained in a safe and usable condition. Maintenance for existing roads will continue until final abandonment and reclamation of well pads and/or other facilities, as applicable. Road maintenance will include, but is not limited to, blading, ditching, and/or culvert installation and cleanout. To ensure safe operating conditions, gravel surfacing will be performed where excessive rutting or erosion may occur. Dust control will be performed as necessary to ensure safe operating conditions.

Roads, gathering lines and electrical distribution lines will occupy common disturbance corridors where possible. Where available, roadways will be used as the staging area and working space for installation of gathering lines. All disturbances located in the same corridor will overlap each other to the maximum extent possible, while maintaining safe and sound construction and installation practices. Unless otherwise approved or requested in site specific documents, in no case will the maximum disturbance widths of the access road and utility corridors exceed the widths specified in Part D of this document.

Please refer to Topo B, for existing roads.

The following segments are "on-lease"

 $\pm 140'$ (0.03 miles) – Section 5 T10S R23E (SW/4 SW/4) – On-lease UTU73450, from the edge of the pad to tie-in to the ROW that is in progress for the Bonanza 1023-6B Pad. Please refer to Topo B.

The following segment is a "ROW in Progress" with the Bonanza 1023-6H Pad

 $\pm 1,385'$ (0.3 miles) – Section 5 T10S R23E (SW/4 SW/4) – On-lease UTU73450, traveling southeast through the NW/4 of Section 8 T10S R23E on lease UTU37355 to tie-in to the county road interesection. Please see Exhibit B2, Lines 2 and 1.

B. New or Reconstructed Access Roads:

All new or reconstructed roads will be located, designed, and maintained to meet the standards of the BLM. BMPs. Described in the BLM's Surface Operating Standards for Oil and Gas Exploration and Development, 4th Edition (Gold Book) (USDI and USDA, 2007) and/or BLM Manual Section 9113 (1985) will be considered in consultation with the BLM in the design, construction, improvement and maintenance of all new or reconstructed roads. If a new road would cross a water of the United States, Kerr-McGee will adhere to the requirements of applicable Nationwide Permits of the Department of Army Corps of Engineers.

Each new well pad or pad expansion may require construction of a new access road and/or de-commissioning of an older road. Plans, routes, and distances for new roads and road improvements are provided in design packages, exhibits and maps for a project. Project-specific maps are submitted to depict the locations of existing, proposed, and/or decommissioned and include the locations for supporting structures, including, but not limited to, culverts, bridges, low water crossings, range infrastructure, and haul routes, as per OSO 1. Designs for cuts and fills, including spoils source and storage areas, are provided with the road designs, as necessary.

Where safety objectives can be met. As applicable, Kerr-McGee may use unimproved and/or two-track roads for lease operations, to lessen total disturbance.

Road designs will be based on the road safety requirements, traffic characteristics, environmental conditions, and the vehicles the road is intended to carry. Generally, newly constructed unpaved lease roads will be crowned and ditched with the running surfaces of the roads approximately 12-18 feet wide and a total road corridor width not to exceed 45 feet,

Bonanza 1023-5M1AS/ 1023-5M1CS/ 1023-5M3BS/ 1023-5M3CS Bonanza 1023-5N3CS/ 1023-5N4AS/ 1023-8C2DS Kerr-McGee Oil Gas Onshore, L.P. Bonanza 1023-5M Pad Surface Use Plan of Operations 3 of 15

except where noted in the road design for a specific project. Maximum grade will generally not exceed 8%. Borrow ditches will be back sloped 3:1 or less. Construction BMPs will be employed to control onsite and offsite erosion.

Where topography would direct storm water runoff to an access road or well pad, drainage ditches or other common drainage control facilities, such as V- or wing-ditches, will be constructed to divert surface water runoff. Drainage features, including culverts, will be constructed or installed prior to commencing other operations, including drilling or facilities placement. Riprap will be placed at the inlet and outlet at the culvert(s), as necessary.

Prior to construction, new access road(s) will be staked according to the requirements of OSO 1. Construction activity will not be conducted using frozen or saturated materials or during periods when significant watershed damage (e.g. rutting, extensive sheet soil erosion, formation of rills/gullies, etc.) is likely to occur. Vegetative debris will not be placed in or under fill embankments.

New road maintenance will include, but is not limited to, blading, ditching, culvert installation and cleanout, gravel surfacing where excessive rutting or erosion may occur and dust control, as necessary to ensure safe operating conditions. All vehicular traffic, personnel movement, construction/restoration operations will be confined to the approved area and to existing roadways and/or access routes.

Snow removal will be conducted on an as-needed basis to accommodate safe travel. Snow removal will occur as necessary throughout the year, as will necessary drainage ditch construction. Removed snow may be stored on permitted well pads to reduce hauling distances and/or at the aerial extent of approved disturbance boundaries to facilitate snow removal for the remainder of the season.

If a county road crossing or encroachment permit is needed, it will be obtained prior to construction.

There are no new or reconstructed access roads for the proposed well pad.

**Please refer to Topo B.

C. Location of Existing Wells:

A) Refer to Topo Map C.

D. Location of Existing and/or Proposed Facilities:

This pad will expand the existing pad for the Bonanza 1023-5M, which is a producing gas well according to Utah Division of Oil, Gas and Mining (UDOGM) records on May 27, 2011. Gathering (pipeline) infrastructure will be utilized to collect and transport gas and fluids from the wells which are owned and operated by Kerr McGee Oil and Gas Onshore LP (Kerr-McGee).

Should the well(s) prove productive, production facilities will be installed on the disturbed portion of each well pad. A berm will be constructed completely around production components (typically excluding dehy's and/or separators) that contain fluids (i.e. production tanks, produced liquids tanks). The berms will generally be constructed of compacted subsoil or corrugated metal, and will hold the capacity of the largest tank and have sufficient freeboard to accomodate a 25 year rainfall event. This includes pumping units. Aboveground structures constructed or installed onsite for 6 months or longer, will be painted a flat, non-reflective, earth-tone color chosen at the onsite in coordination with the BLM (typically Shadow Gray). A production facility layout is provided as part of a project-specific APD, ROW or NOS submission.

GAS GATHERING

Please refer to Exhibit B and Topo D- Pad and Pipeline Detail.

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The gas gathering pipeline material: Steel line pipe. Surface = Bare pipe. Buried = Coated with fusion bonded epoxy coating (or equivalent). The total gas gathering pipeline distance from the meter to the tie in point is $\pm 16,720$ ' and the individual segments are broken up as follows:

The following segments are "onlease", no ROW needed.

- ±700' (0.1 miles) Section 5 T10S R23E (SW/4 SW/4) On-lease UTU73450, BLM surface, New 10" buried gas gathering pipeline from the meter to the edge of the pad. Please refer to Topo D2 Pad and Pipeline Detail.
- ±280' (0.1 miles) Section 5 T10S R23E (SW/4 SW/4) On-lease UTU73450, BLM surface, New 10" buried gas gathering pipeline from the edge of the pad to the tie-in at the proposed 16" gas gathering pipeline. Please refer to Topo D2 and Exhibit A, Line 14.

The following segment is a "ROW in Progress" with the Bonanza 1023-6B Pad

±15,740' (3.0 miles) – Section 5 T10S R23E (SW/4 SW/4) – On-lease UTU73450, traveling northwest, dipping into Section 8, T10S R23E on lease UTU37355 and traveling back through Section 5, T10S R23E. Then traveling northwesterly through Section 6, T10S R23E on lease UTU38419 to section boundary. Continuing on southwesterly direction through the W/2 of Section 1 T10S R22E on lease UTU011336 to state section boundary at Section 2, T10S R22E. Please see Exhibit A1, Lines 3, 4, 5, 6, 8, 9 and 10.

The remaining gas pipeline section that will go to the existing Tank Battery, will be on state surface. Kerr-McGee will apply for the appropriate state rights of way.

Kerr-McGee, additionally will install a gas gathering line in a southeasterly direction to tie into an existing buried pipeline. The total of this proposed gas gathering from the meter to the tie in point is $\pm 2,400$ and the individual segments are broken up as follows:

The following segments are "onlease", no ROW needed.

- ± 700 ' (0.1 miles) Section 5 T10S R23E (SW/4 SW/4) On-lease UTU73450, BLM surface, New 10" buried gas gathering pipeline from the meter to the edge of the pad. Please refer to Topo D2 Pad and Pipeline Detail.
- ±280' (0.1 miles) Section 5 T10S R23E (SW/4 SW/4) On-lease UTU73450, BLM surface, New 10" buried gas gathering pipeline from the edge of the pad to the tie-in at the proposed 16" gas gathering pipeline. Please refer to Topo D2 and Exhibit A, Line 14.

The following segment is a "ROW in Progress" with the Bonanza 1023-6B Pad

 $\pm 1,420'$ (0.3 miles) – Section 5 T10S R23E (SW/4 SW/4) – On-lease UTU73450, traveling southeast through the NW/4 of Section 8 T10S R23E on lease UTU37355 to tie-in the existing 16" gas gathering pipeline. Please see Exhibit A1, Lines 2 and 1.

LIQUID GATHERING

The total liquid gathering pipeline distance from the separator to the tie in point is $\pm 16,720$ ' and the individual segments are broken up as follows:

The following segments are "onlease", no ROW needed.

±700' (0.1 miles) – Section 5 T10S R23E (SW/4 SW/4) – On-lease UTU73450, BLM surface, New 6" buried liquid gathering pipeline from the separator to the edge of the pad. Please refer to Topo D2 - Pad and Pipeline Detail.

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±280' (0.1 miles) – Section 5 T10S R23E (SW/4 SW/4) – Lease UTU73450, BLM surface, New 6" buried liquid gathering pipeline from the edge of the pad to the tie-in at the proposed 6" buried liquid gathering line (SW/4 SW/4 of section 5). Please refer to Topo D2 and Exhibit B1, Line 9.

The following segment is a "ROW in Progress" with the Bonanza 1023-6B Pad

±15,740' (3.0 miles) – Section 5 T10S R23E (SW/4 SW/4) – On-lease UTU73450, traveling northwest, dipping into Section 8, T10S R23E on lease UTU37355 and traveling back through Section 5, T10S R23E. Then traveling northwesterly through Section 6, T10S R23E on lease UTU38419 to section boundary. Continuing on southwesterly direction through the W/2 of Section 1 T10S R22E on lease UTU011336 to state section boundary at Section 2, T10S R22E. Please see Exhibit A1, Lines 3, 4, 5, 6, 8, 9 and 10.

The remaining liquid pipeline section that will go to the existing Tank Battery, will be on state surface. Kerr-McGee will apply for the appropriate state rights of way.

Kerr-McGee, additionally will install a liquid gathering line in a southeasterly direction to tie into an existing buried pipeline. The total of this proposed liquid gathering from the separator to the tie in point is $\pm 2,400$ and the individual segments are broken up as follows:

The following segments are "onlease", no ROW needed.

- ±700' (0.1 miles) Section 5 T10S R23E (SW/4 SW/4) On-lease UTU73450, BLM surface, New 6" buried liquid gathering pipeline from the separator to the edge of the pad. Please refer to Topo D2 Pad and Pipeline Detail.
- ±280' (0.1 miles) Section 5 T10S R23E (SW/4 SW/4) Lease UTU73450, BLM surface, New 6" buried liquid gathering pipeline from the edge of the pad to the tie-in at the proposed 6" buried liquid gathering line (SW/4 SW/4 of section 5). Please refer to Topo D2 and Exhibit B1, Line 9.

The following segment is a "ROW in Progress" with the Bonanza 1023-6B Pad

 $\pm 2,400'$ (0.3 miles) – Section 5 T10S R23E (SW/4 SW/4) – On-lease UTU73450, traveling southeast through the NW/4 of Section 8 T10S R23E on lease UTU37355 to tie-in the existing liquid gathering pipeline. Please see Exhibit A1, Lines 2 and 1.

Pipeline Gathering Construction

Gathering (pipeline) infrastructure will be utilized to collect and transport gas and fluids from the wells which are owned and operated by Kerr McGee. Gas gathering pipeline(s,) gas lift, or liquids pipelines may be constructed to lie on the surface or be buried. Where the pipeline is adjacent to the road or well pad, the road and/or well pad will be utilized for construction activities and staging. The area of disturbance during construction from the edge of road or well pad will typically be 30' in width. Where pipelines run cross country, the width of disturbance will typically be 45 ft for buried lines and 30 ft for surface lines. In addition, Kerr-McGee requests for a permanent 30' distrubance width that will be maintained for the portion adjacent to the road. The need for the 30' permanent distrubance width is for maintenance and repairs. Cross country permanent distrubance width also are required to be 30ft.

Above-ground installation will generally not require clearing of vegetation or blading of the surface, except where safety considerations necessitate earthwork. In some surface pipeline installation instances pipe cannot be constructed where it will lay. In these cases where an above-ground pipeline is constructed parallel and adjacent to a road, it will be welded/fused on the road and then lifted from the road to the pipeline route. In other cases where a pipeline route is not parallel and adjacent to a road (cross-country between sites), it will be welded/fused in place at a well pad, access road, or designated work area and pulled between connection locations with a suitable piece of equipment.

Buried pipelines will generally be installed parallel and adjacent to existing and/or newly constructed roads and within the permitted disturbance corridor. Buried pipelines may vary from 2 inches (typically fuel gas lines) to 24 inches (typically transportation lines) in diameter, but 6 to 16 inches is typical for a buried gas line. The diameter of liquids pipelines may vary from 2 inches to 12 inches, but 6 inches is the typical diameter. Gas lift lines may vary from 2 to 12 inches in diameter,

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but 6-inch diameter pipes are generally used for gas lift. If two or more pipelines are present (gas gathering, gas lift, and fluids), they will share a common trench where possible.

Typically, to install a buried pipeline, topsoil will be removed, windrowed and placed on the non-working side of the route for later reclamation. Because working room is limited, the spoil may be spread out across the working side and construction will take place on the spoil. The working side of the corridor will be used for pipe stringing, bending, welding and equipment travel. Small areas on the working side displaying ruts or uneven ground will be groomed to facilitate the safe passage of equipment. After the pipelines are installed, spoil will be placed back into the trench, and the topsoil will be redistributed over the disturbed corridor prior to final reclamation. Typical depth of the trench will be 6 feet, but depths may vary according to site-specific conditions (presence of bedrock, etc.). The proposed trench width for the pipeline would range from 18-48 inches.

The pipeline will be welded along the proposed route and lowered into place. Trenching equipment will cut through the soil or into the bedrock and create good backfill, eliminating the need to remove large rocks. The proposed buried pipeline will be visually and radiographically inspected and the entire pipeline will be pneumatically or hydrostatically tested before being placed into service. Routine vehicle traffic will be prevented from using pipeline routes as travel ways by posting signs at the route's intersection with an access road.

The liquid gathering lines will be made of polyethylene or a composite polyethylene/steel or polyethylene/fiberglass that is not subject to internal or external pipe corrosion. The content of the produced fluids to be transferred by the liquid gathering system will be approximately 92% produced water and 8% condensate. Trunk line valve connections for the water gathering system will be below ground but accessible from the surface in order to prevent freezing during winter time.

If pipelines or roads encounter a drainage that could be subject to flooding or surface water during extreme precipitation events, Kerr-McGee will apply all applicable Army Corps mandates as well as the BLM's Hydraulic Considerations for Pipeline Crossings of Stream Channels (BLM Technical Note 423, April 2007). In addition, all stream and drainage crossings will be evaluated to determine the need for stream alteration permits from the State of Utah Division of Water Rights and if necessary, required permits will be secured. Similarly, where a road or pipeline crossing exists the pipe will be butt welded and buried to a depth between 24 and 48 inches or more. Dirt roads will be cut and restored to a condition equivalent to the existing condition. All Uintah County road encroachment and crossing permits, where applicable, will be obtained prior to crossing construction. In no case will pressure testing of pipelines result in discharge of liquids to the surface.

Pipeline signs will be installed along the route to indicate the pipeline proximity, ownership, and to provide emergency contact phone numbers. Above ground valves and lateral T's will be installed at various locations for production integrity and safety purposes.

Upon completion of the proposed buried pipeline, the entire area of disturbance will be reclaimed to the standards proposed in the Green River District Reclamation Guidelines. Please refer to section J for more details regarding final reclamation.

When no longer deemed necessary by the operator, Kerr-McGee or it's successor will consult with the BLM, Vernal Field Office before terminating of the use of the pipeline(s).

$\label{thm:completions} The \ Anadarko \ Completions \ Transportation \ System \ (ACTS) \ information:$

Please refer to Exhibit C for ACTs Lines

Kerr-McGee will use either a closed loop drilling system that will require one pit and one storage area to be constructed on the drilling pad or a traditional drilling operation with one pit. The storage area will be used to contain only the de-watered drill cuttings and will be lined and reclaimed according to traditional pit closure standards. The pit will be constructed to allow for completion operations. The completion operations pit is lined and will be used for the wells drilled on the pad or

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used as part of our Anadarko Completions Transportation (ACTS) system which is disussed in more detail below. Using the closed loop drilling system will allow Kerr-McGee to decrease the amount of disturbance/footprint on location compared to a single large drilling/completion pit.

If Kerr-McGee does not use a closed loop system, it will construct a drilling reserve pit to contain drill cuttings and for use in completion operations. Depending on the location of the pit, its relation to future drilling locations, the reserve/completion pit will be utilized for the completion of the wells on that pad and/or be used as part of our ACTS system.

Kerr-McGee will use ACTS to optimize the completion processes for multiple pads across the project area which may include up to a section of development. ACTS will facilitate management of frac fluids by utilizing existing reserve pits and temporary, surface-laid aluminum liquids transfer lines between frac locations. The pit will be refurbished as follows when a traditional drill pit is used: mix and pile up drill cuttings with dry dirt, bury the original liner in the pit, walk bottom of pit with cat. Kerr-McGee will reline the pit with a 30 mil liner and double felt padding. The refurbished pit will be the same size or smaller as specified in the originally approved ROW/APD. The pit refurb will be done in a normal procedure and there will be no modification to the pit.

All four sides of the completions pit will be fenced in according to standard pit fencing procedures. Netting will be installed over all pits.

The collected hydrocarbons will be treated and sold at approved sales facilities. A loading rack with drip containment will also be installed where water trucks would unload and load to prevent damage caused from pulling hoses in and out of the pit .

ACTS will require temporarily laying multiple 6" aluminum water transfer lines on the surface between either existing or refurbished reserve pits. Please see the attached ACTS exhibit C for placement of the proposed temporary lines. The temporary aluminum transfer lines will be utilized to transport frac fluid being injected and/or recovered during the completion process and will be laid adjacent to existing access roads or pipeline corridors. Upon completion of the frac operation, the liquids transfer lines will be flushed with fresh water and purged with compressed air. The contents of the transfer lines will be flushed into a water truck for delivery to another ACTS location or a reserve pit.

The volume of frac fluid transported through a water transfer line will vary, but volume is projected to be approximately 1.75 bbls per 50-foot joint. Although the maximum working pressure is 125 psig, the liquids transfer lines will be operated at a pressure of approximately 30 to 40 psig. Kerr-McGee requests to keep the netted pit open for one year from first production of the first produced well on the pad. During this time the surrounding well location completion fluids may be recycled in this pit and utilized for other frac jobs in the area. After one year Kerr-McGee will backfill the pit and reclaim. If the pit is not needed for an entire year it will be backfilled and reclaimed earlier. Kerr-McGee understands that due to the temporary nature of this system, BLM considers this a casual use situation; therefore, no permanent ROW or temporary use plan will need to be issued by the BLM.

E. Location and Types of Water Supply:

Water for drilling and completion operations will be obtained from the following sources:

Permit # 49-2307	JD Field Services	Green River- Section 15, T2N, R22E
Permit # 49-2321	R.N. Industries	White River- Section 2, T10S, R24E
Permit # 49-2319	R.N. Industries	White River- Various Sources
Permit # 49-2320	R.N. Industries	Green River- Section 33, T8S, R23E

Water will be hauled to location over the roads marked on Maps A and B.

No water well is to be drilled on this lease.

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F. Construction Materials:

Construction operations will typically be completed with native materials found on location. Construction materials that must be imported to the site (mineral material aggregate, soils or materials suitable for fill/surfacing) will be obtained from a nearby permitted source (described in site-specific documents). No construction materials will be removed from federal lands without prior approval from the BLM. A source location other than an on-location construction site will be designated either via a map or narrative within the project specific materials provided to the BLM.

G. Methods for Handling Waste:

All wastes subject to regulation will be handled in compliance with applicable laws to minimize the potential for leaks or spills to the environment. Kerr-McGee also maintains a Spill Control and Countermeasure Plan, which includes notification requirements, including the BLM, for all reportable spills of oil, produced liquids, and hazardous materials.

Any accidental release, such as a leak or spill in excess of the reportable quantity, as established by 40 CFR Part 117.3, will be reported as per the requirements of CERCLA, Section 102 B. If a release involves petroleum hydrocarbons or produced liquids, Kerr-McGee will comply with the notification requirements of NTL-3A. Drill cuttings and/or drilling fluids will be contained in the reserve/frac pit whether a closed loop system is used or not. Cuttings will be buried in pit(s) upon closure. Unless specifically approved by the BLM, no oil or other oil-based drilling additives, chromium/metals-based, or saline muds will be used during drilling. Only fresh water (as specified above), biodegradable polymer soap, bentonite clay, and/or non-toxic additives will be used in the mud system.

Pits will be constructed to minimize the accumulation of surface precipitation runoff into the pit (via appropriate placement of subsoil storage areas and/or construction of berms, ditches, etc). Should unexpected liquid petroleum hydrocarbons (crude oil or condensate) be encountered during drilling, completions or well testing, liquid petroleum hydrocarbons will either be contained in test tanks on the well site or evacuated by vacuum trucks and transported to an approved disposal/sales facility. Should petroleum hydrocarbons unexpectedly be released into a pit, they will be removed as soon as practical but in no case will they remain longer than 72 hours unless an alternate is approved by the BLM. Should timely removal not be feasible, the pit will be netted as soon as practical. Similarly, hydrocarbon removal will take place prior to the closure of the pit, unless authorization is provided for disposal via alternate pit closure methods (e.g. solidification).

The reserve and/or fracture stimulation pit will be lined with an impermeable liner. The liner will be a synthetic material 30 mil or thicker. The bottom and side walls of the pit will be void of any sharp rocks that could puncture the liner. The liner will be installed over smooth fill subgrade that is free of pockets, loose rocks, or other materials (i.e. sand, sifted dirt, bentonite, straw, etc.) that could damage the liner. After evaporation and when dry, the reserve pit liners will be cut off, ripped and/or folded back (as safety considerations allow) as near to the mud surface as possible and buried on location or hauled to a landfill prior to backfilling the pit with a minimum of five feet of soil material.

Where necessary and if conditions (freeboard, etc.) allow, produced liquids from newly completed wells may be temporarily disposed of into pits for a period not to exceed 90 days as per Onshore Order Number 7 (OSO 7). Subsequently, permanent approved produced water disposal methods will be employed in accordance with OSO 7 and/or as described in a Water Management Plan (WMP). Otherwise, fluids disposal locations and associated haul routes, for ROW consideration, are typically depicted on Topo A of individual projects. Revisions to the water source or method of transportation will be subject to written approval from the BLM.

Any additional pits necessary for subsequent operations, such as temporary flare or workover pits, will be contained within the originally approved well pad and disturbance boundaries. Such temporary pits will be backfilled and reclaimed within 180 days of completion of work at a well location.

Pits containing drilling cuttings, mud, and/or completions fluids will be allowed to dry. Any free fluids remaining after one year from reaching total depth, date of completion, and/or determination of inactivity will be removed (as weather conditions

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allow) to an approved site and the pit reclaimed. Installation and operation of any sprinklers, pumps, and equipment will ensure that water spray or mist does not drift.

No garbage or non-exempt substances as defined by Resource Conservation and Recovery Act (RCRA) subtitle C will be placed in the reserve pit. All refuse (trash and other solid waste including cans, paper, cable, etc.) generated during construction, drilling, completion, and well testing activities will be contained in an enclosed receptacle, removed from the drill locations promptly, and transported to an approved disposal facility. Immediately after removal of the drilling rig, all debris and other waste materials not contained within trash receptacles will be collected and removed from the well location.

For the protection of livestock and wildlife, all open pits (excluding flare pits) will be fenced to prevent wildlife or livestock entry. Total height of pit fencing will be at least 42 inches and corner posts will be cemented and/or braced in such a manner as to keep the fence tight at all times. Standard steel, wood, or pipe posts shall be used between the corner braces. Maximum distance between any 2 fence posts shall be no greater than 16 feet. Siphons, catchments, and absorbent pads will be installed to keep hydrocarbons produced by the drilling rig or other equipment on location from entering the reserve pit. Hydrocarbons, contaminated pads, and/or soils will be disposed of in accordance with state and federal requirements. Portable, self-contained chemical toilets and/or sewage processing facilities will be provided for human waste disposal. Upon completion of operations, or as required, the toilet holding tanks will be pumped and the contents disposed of in an approved sewage disposal facility. All applicable regulations pertaining to disposal of human and solid waste will be observed.

Materials Management

Hazardous materials above reportable quantities will not be produced by drilling or completing proposed wells or constructing the pipelines/facilities. The term "hazardous materials" as used here means: (1) any substance, pollutant, or containment listed as hazardous under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, as amended 42 U.S.C. 9601 et seq., and the regulations issued under CERCLA; and (2) any hazardous waste as defined in RCRA of 1976, as amended. In addition, no extremely hazardous substance, as defined in 40 CFR 355, in threshold planning quantities, would be used, produced, stored, transported, or disposed of while producing any well.

Hazardous materials may be contained in some grease or lubricants, solvents, acids, paint, and herbicides, among others as defined above. Kerr-McGee maintains a file, per 29 CFR 1910.1200 (g) containing current Material Safety Data Sheets (MSDS) for all chemicals, compounds, and/or substances that are used during the course of construction, drilling, completion, and production operations for this project. The transport, use, storage and handling of hazardous materials will follow procedures specified by federal and state regulations. Transportation of hazardous materials to the well location is regulated by the Department of Transportation (DOT) under 49 CFR, Parts 171-180. DOT regulations pertain to the packing, container handling, labeling, vehicle placarding, and other safety aspects.

Potentially hazardous materials used in the development or operation of wells will be kept in limited quantities on well sites and at the production facilities for short periods of time. Chemicals meeting the criteria for being an acutely hazardous material/substance or meet the quantities criteria per BLM Instruction Memorandum No. 93-344 will not be used.

Chemicals subject to reporting under Title III of the Superfund Amendments and Reauthorization Act (SARA) in quantities of 10,000 pounds or more may be produced and/or stored at production facilities (crude oil/condensate, produced water). They may also be kept in limited quantities on drilling sites (barite, diesel fuel, cement, cottonseed hulls etc.) for short periods of time during drilling or completion activities.

Fluids disposal and pipeline/haul routes are depicted on Topo Map A.

Bonanza 1023-5M1AS/ 1023-5M1CS/ 1023-5M3BS/ 1023-5M3CS Bonanza 1023-5N3CS/ 1023-5N4AS/ 1023-8C2DS Kerr-McGee Oil Gas Onshore, L.P. Bonanza 1023-5M Pad Surface Use Plan of Operations 10 of 15

Any produced water separated from recoverable condensate from the proposed well will be contained in a water tank and will then be transported by pipeline and/or truck to one of the pre-approved disposal sites:

RNI in Sec. 5 T9S R22E NBU #159 in Sec. 35 T9S R21E Ace Oilfield in Sec. 2 T6S R20E MC&MC in Sec. 12 T6S R19E Pipeline Facility in Sec. 36 T9S R20E

Goat Pasture Evaporation Pond in SW/4 Sec. 16 T10S R22E

Bonanza Evaporation Pond in Sec. 2 T10S R23E

Or to one of the following Kerr-McGee active Salt Water Disposal (SWD) wells:

NBU 159 SWD in Sec. 35 T9S R21E CIGE 112D SWD in Sec. 19 T9S R21E CIGE 114 SWD in Sec. 34 T9S R21E NBU 921-34K SWD in Sec. 34 T9S R21E NBU 921-33F SWD in Sec. 34 T9S R21E

H. Ancillary Facilities:

No additional ancillary facilities are planned for this location.

I. Well Site Layout:

The location, orientation and aerial extent of each drill pad, reserve/completion/flare pit (for closed loop or non-closed loop operations), access road ingress/egress points, drilling rig, dikes/ditches, existing wells/infrastructure, proposed cuts and fills, and topsoil and spoil material stockpile locations are depicted on the exhibits for each project, where applicable. Site-specific conditions may require slight deviation in actual equipment depending on whether a closed loop system is used. Surface distance may be less if using closed loop. But in either case, the area of distrubance will not exceed the maximum disturbance outlined in the attached exhibits.

For the protection of livestock and wildlife, all open pits and cellars will be fenced to prevent wildlife or livestock entry. Total height of pit fencing will be at least 42 inches and corner posts will be cemented and/or braced in such a manner as to keep the fence tight at all times. Standard steel, wood, or pipe posts shall be used between the corner braces. Maximum distance between any 2 fence posts shall be no greater than 16 feet.

Each well will utilize either a centralized tank battery, centralized fluids management system, or have tanks installed on its pad. Production/ Produced Liquid tanks will be constructed, maintained, and operated to prevent unauthorized surface or subsurface discharges of liquids and to prevent livestock or wildlife entry. The tanks will be kept reasonably free from surface accumulations of liquid hydrocarbons. The tanks are not to be used for disposal of liquids from additional sources without prior approval of BLM.

J. Plans for Surface Reclamation:

The surface reclamation will be undertaken in two phases: interim and final. Interim reclamation is conducted following well completion and extends through the period of production. Interim reclamation is for the area of the well pad that is not required for production activities. Final reclamation is conducted following well plugging/conversion and/or facility abandonment processes.

Bonanza 1023-5M1AS/ 1023-5M1CS/ 1023-5M3BS/ 1023-5M3CS Bonanza 1023-5N3CS/ 1023-5N4AS/ 1023-8C2DS Kerr-McGee Oil Gas Onshore, L.P. Bonanza 1023-5M Pad Surface Use Plan of Operations 11 of 15

Reclamation activities in both phases may include but is not limited to the re-contouring or re-configuration of topographic surfaces, restoration of drainage systems, segregation of spoils materials, minimizing surface disturbance, re-evaluating backfill requirements, pit closure, topsoil redistribution, soil treatments, seeding and weed control.

Interim Reclamation

Interim reclamation may include pit evaporation, fluid removal, pit solidification, re-contouring, ripping, spreading top soil, seeding, and/or weed control. Interim reclamation will be performed in accordance with OSO 1, or written notification will be provided to the BLM for approval. Where feasible, drilling locations, reserve pits, or access routes not utilized for production operations will be re-contoured to a natural appearance.

Interim re-contouring involves bringing all construction material from cuts and fills back onto the well pad and site and reestablishing the natural contours where desirable and practical. Fill and stockpiled spoils no longer necessary to the operation will be spread on the cut slopes and covered with stockpiled topsoil. All stockpiled top soils will be used for interim reclamation where practical to maintain soil viability. Where possible, the land surface will be left "rough" after re-contouring to ensure that the maximum surface area will be available to support the reestablishment of vegetative cover.

A reserve pit, upon being allowed to dry, will be backfilled and compacted with cover materials that are void of any topsoil, vegetation, large stones, rocks or foreign objects. Soils that are moisture laden, saturated, or partially/completely frozen will not be used for backfill or cover. The pit area will be mounded to allow for settling and to promote positive surface drainage away from the pit. Disposal of pit fluids and linings is discussed in Section G.

Final Reclamation

Final reclamation will be performed for unproductive wells and after the end of the life of a productive well. As soon as practical after the conclusion of drilling and testing operations, unproductive drill holes will be plugged and abandoned (P&A). Site and road reclamation will commence following plugging. In no case will reclamation at non-producing locations be initiated later than six (6) months from the date a well is plugged. A joint inspection of the disturbed area to be reclaimed may be requested by Kerr-McGee. The primary purpose of this inspection will be to review the existing conditions, or agree upon a revised final reclamation and abandonment plan. The BLM will be notified prior to commencement of reclamation operations. A Notice of Intent to Abandon will be filed for final recommendations regarding surface reclamation.

After plugging, all wellhead equipment that is no longer needed will be removed, and the well site will be reclaimed. Final contouring will blend with and follow as closely as practical the natural terrain and contours of the original site and surrounding areas. After re-contouring the site to the approximate contour that existed prior to pad construction, final grading will be conducted over the entire surface of the well site and access road. The area will be ripped to a depth of 18 to 24 inches on 18 to 24-inch centers, where practical. The surface soil material will be pitted with small depressions to form longitudinal depressions 12 to 18 inches deep, where practical. The entire area will be uniformly covered with the depressions constructed perpendicular to the natural flow of water.

Reclamation of roads will be performed at the discretion of the BLM. All unnecessary surface equipment and structures (e.g. cattle guards) and water control structures (e.g. culverts, drainage pipes) not needed to facilitate successful reclamation will be removed during final reclamation. Roads that will be reclaimed will be ripped to a depth of 18 inches where practical, re-contoured to approximate the original contour of the ground and seeded in accordance with the seeding specifications of the BLM.

Upon successfully completing reclamation of a P&A location, a Final Abandonment Notice will be submitted to the BLM.

Measures Common to Interim and Final Reclamation

Bonanza 1023-5M Pad Surface Use Plan of Operations 12 of 15

Soil preparation will be conducted using a disk for areas in need of more soil preparation following site preparation. This will provide primary soil tillage to a depth no greater than 6 inches. Prior to reseeding, compacted areas will be scarified by ripping or chiseling to loosen compacted soils, promote water infiltration, and improve soil aeration and root penetration.

Seeding will occur year-round as conditions allow and will typically be accomplished through the use of a no-till rangeland style seed drill with a "picker box" in order to seed "fluffy" seed. Where drill seeding is not the preferred method, seed will be broadcast and then raked into the ground at double the rate of drill seeding. Seed mixes appropriate to the native plant community as determined and specified for each project location based on the site specific soils will be used for re-vegetation. The seed mixes will be selected from a list provided by or approved by the BLM, or a specific seed mix will be proposed by Kerr-McGee to the BLM and used after its approval. The selected specific seed mix for each well location and road segment will be utilized while performing interim and final reclamation for each project. All seed will be certified and tags will be maintained by Kerr-McGee. Every effort will be made to obtain "cheat grass free seed".

Seed Mix to be used for Well Site, Access Road, and Pipeline (as applicable):

Bonanza Area Mix	Pure Live Seed lbs/acre
Crested Wheat (Hycrest)	2
Bottlebrush Squirreltail	1
Western Wheatgrass	1
(Arriba)	
Indian Ricegrass	1
Fourwing Saltbush	2
Shadscale	2
Forage Kochia	0.25
Rocky Mountain Bee	0.5
Total	9.75

Additional soil amendments and/or stabilization may be required on sites with poor soils and/or excessive erosion potential. Where severe erosion can become a problem and/or the use of machinery is not practical, seed will be hand broadcast and raked with twice the specified amount of seed. Slopes will be stabilized using materials specifically designed to prevent erosion on steep slopes and hold seed in place so vegetation can become permanently established. These materials will include, but are not limited to: erosion control blankets, hydro-mulch, and/or bonded fiber matrix at a rate to achieve a minimum of 80 percent soil coverage. Soil amendments such as "Sustain" (an organic fertilizer that will be applied at the rate 1,800 – 2,100 lbs/acre with seed) may also be dry broadcast or applied with hydro-seeding equipment.

Weed Control

All weed management will be done in accordance with the Vernal BLM Surface Disturbance Weed Policy. Noxious weeds will be controlled, as applicable, on project areas. Monitoring and management of noxious and/or invasive weeds of concern will be completed annually until the project is deemed successfully reclaimed by the surface management agency and/or owner according to the Anadarko Integrated Weed Management Plan. Noxious weed infestations will be mapped using a GPS unit and submitted to the BLM with information required in the Vernal BLM Surface Disturbance Weed Policy. If herbicide is to be applied it will be done according to an approved Pesticide Use Permit (PUP), inclusive of applicable locations. All pesticide applications will be recorded using a Pesticide Application Record (PAR) and will be submitted along with a Pesticide Use Report (PUR) annually prior to Dec. 31.

Monitoring

Monitoring of reclaimed project areas will be completed annually during the growing season and actions to ensure reclamation success will be taken as needed. During the first two growing seasons an ocular methodology will be used to determine the success of the reclamation activities. During the 3rd growing season a 200 point line intercept (quantitative) methodology will be used to obtain basal cover. The goal is to have the reclaimed area reach 30% basal cover when compared to the reference site. If after three growing seasons the area has not reached 30% basal cover, additional reclamation activities may be necessary. Monitoring will continue until the reclaimed area reaches 75% basal cover of desirable vegetation when compared to the reference site. (Green River District Reclamation Guidelines)

Bonanza 1023-5M1AS/ 1023-5M1CS/ 1023-5M3BS/ 1023-5M3CS Bonanza 1023-5N3CS/ 1023-5N4AS/ 1023-8C2DS Kerr-McGee Oil Gas Onshore, L.P. Bonanza 1023-5M Pad Surface Use Plan of Operations 13 of 15

All monitoring reports will be submitted electronically to the Vernal BLM in the form of a geo-database no later than March 1st of the calendar year following the data collection.

K. Surface/Mineral Ownership:

United States of America Bureau of Land Management 170 South 500 East Vernal, UT 84078 (435)781-4400

L. Other Information:

Onsite Specifics:

- Construction: 30 Mil Double Felt
- Facilities: Will be painted Shadow Grey
- Top Soil: Need to save 4" topsoil and will be move and put around the corner
- Wildlife Stips: Golden Eagle and Lease stip for Raptor
- Will need separate condensate tank because the Bonanza 1023-8C2DS bottom hole location crosses CA boundary.

Cultural and Paleontological Resources

All personnel are strictly prohibited from collecting artifacts, any paleontological specimens or fossils, and from disturbing any significant cultural resources in the area. If artifacts, fossils, or any culturally sensitive materials are exposed or identified in the area of construction, all construction operations that would affect the newly discovered resource will cease, and Kerr-McGee will provide immediate notification to the BLM.

Resource Reports:

A Class I literature survey was completed on April 23, 2010 by Montgomery Archaeological Consultants, Inc (MOAC). For additional details please refer to report MOAC 10-056.

A paleontological reconnaissance survey was completed on May 13, 2010 by SWCA Environmental Consultants. For additional details please refer to report UT10-14314-16.

Biological field survey was completed on April 12, 2010 by Grasslands Consulting, Inc (GCI). For additional details please refer to report GCI-208.

Bonanza 1023-5M Pad Surface Use Plan of Operations 14 of 15

Proposed Action Annual Emissions Tables:

Table 1:	Table 1: Proposed Action Annual Emissions (tons/year) ¹								
Pollutant	Development	Production	Total						
NOx	3.8	0.12	3.92						
CO	2.2	0.11	2.31						
VOC	0.1	4.9	5						
SO_2	0.005	0.0043	0.0093						
PM_{10}	1.7	0.11	1.81						
PM _{2.5}	0.4	0.025	0.425						
Benzene	2.2E-03	0.044	0.046						
Toluene	1.6E-03	0.103	0.105						
Ethylbenzene	3.4E-04	0.005	0.005						
Xylene	1.1E-03	0.076	0.077						
n-Hexane	1.7E-04	0.145	0.145						
Formaldehyde	1.3E-02	8.64E-05	1.31E-02						

¹ Emissions include 1 producing well and associated operations traffic during the year in which the project is developed

Table 2: Proposed Action versus 2012 WRAP Phase III Emissions Inventory Comparison									
Species	Proposed Action Production Emissions (ton/yr)	2012 Uintah Basin Emission Inventory ^a (ton/yr)	Percentage of Proposed Action to WRAP Phase III						
NOx	27.44	16,547	0.17%						
VOC	35	127,495	0.03%						

^a http://www.wrapair.org/forums/ogwg/PhaseIII_Inventory.html

Uintah Basin Data

Bonanza 1023-5M1AS/ 1023-5M1CS/ 1023-5M3BS/ 1023-5M3CS Bonanza 1023-5N3CS/ 1023-5N4AS/ 1023-8C2DS Kerr-McGee Oil Gas Onshore, L.P. Bonanza 1023-5M Pad Surface Use Plan of Operations 15 of 15

M. Lessee's or Operators' Representative & Certification:

Gina T. Becker Regulatory Analyst II Kerr-McGee Oil & Gas Onshore LP PO Box 173779 Denver, CO 80217-3779 (720) 929-6086 Tommy Thompson General Manager, Drilling Kerr-McGee Oil & Gas Onshore LP PO Box 173779 Denver, CO 80217-3779 (720) 929-6724

Certification: All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, Onshore Oil and Gas Orders, the approved Plan of Operations, and any applicable Notice to Lessees.

The Operator will be fully responsible for the actions of its subcontractors. A complete copy of the approved "Application for Permit to Drill" will be furnished to the field representative(s) to ensure compliance and shall be on location during all construction and drilling operations.

Kerr-McGee Oil & Gas Onshore LP is considered to be the operator of the subject well. Kerr-McGee Oil & Gas Onshore LP agrees to be responsible under terms and conditions of the lease for the operations conducted upon leased lands.

Bond coverage pursuant to 43 CFR 3104 for lease activities is being provided by Bureau of Land Management Nationwide Bond WYB000291.

I hereby certify that I, or persons under my supervision, have inspected the proposed drill site and access route, that I am familiar with the conditions that currently exist; that I have full knowledge of the State and Federal laws applicable to this operation; that the statements made in this plan are, to the best of my knowledge, true and correct; and the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

July	O Bell	October 12, 2011	
Gina T.Becker		Date	•



Joseph D. Johnson LANDMAN Kerr-McGee Oil & Gas Onshore LP P.O. Box 173779 Denver, CO 80217-3779

June 7, 2011

Ms. Diana Mason Division of Oil, Gas and Mining P.O. Box 145801 Salt Lake City, UT 84114-6100

Re: Exception Location R649-3-3 and Directional Drilling R649-3-11

Bonanza 1023-5N4AS

T10S-R23E

Section 5: SWSW/SESW 220' FSL, 1060' FWL (surface) 630' FSL, 2453' FWL (bottom hole) Uintah County, Utah

Dear Ms. Mason:

Pursuant to the filing of Kerr-McGee Oil & Gas Onshore LP's (Kerr-McGee) Application for Permit to Drill regarding the above referenced well, we are hereby submitting this letter in accordance with Oil & Gas Conservation Rule R649-3-3 and Rule R649-3-11 pertaining to the Exception to Location and Siting of Wells.

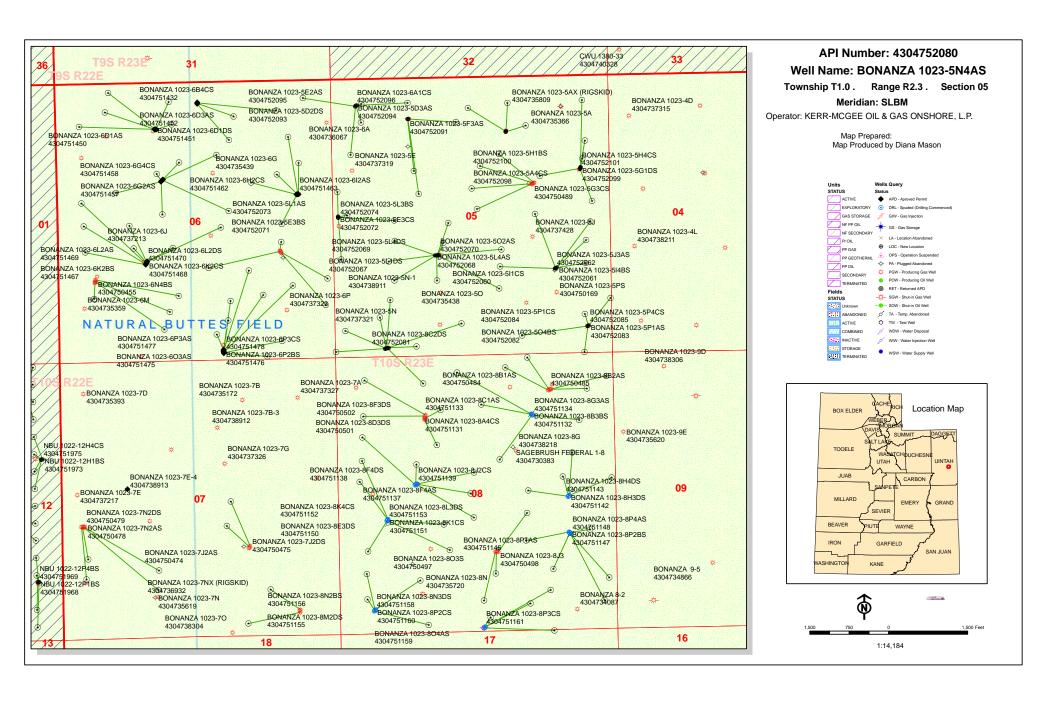
- Kerr-McGee's Bonanza 1023-5N4AS is located within the area covered by Docket No. 2008-011 authorizing the equivalent of an approximate 10-acre well density pattern, and requiring approval for wells drilled at an exception location and wells drilled directionally in accordance with the referenced rules.
- Kerr-McGee is permitting this well at this location for geological reasons. Locating the well at the surface location and directionally drilling from this location, Kerr-McGee will be able to minimize surface disturbance.
- Furthermore, Kerr-McGee certifies that it is the sole working interest owner within 460 feet of the entire directional well bore.

Therefore, based on the above stated information Kerr-McGee Oil & Gas Onshore LP requests the permit be granted pursuant to Rule R6493-3 and Rule R649-3-11.

Sincerely,

KERR-MCGEE OIL & GAS ONSHORE LP

Joseph D. Johnson Landman



WORKSHEET APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 10/17/2011 **API NO. ASSIGNED:** 43047520800000

WELL NAME: BONANZA 1023-5N4AS

OPERATOR: KERR-MCGEE OIL & GAS ONSHORE, L.P. (N2995) PHONE NUMBER: 720 929-6086

CONTACT: Gina Becker

PROPOSED LOCATION: SWSW 05 100S 230E Permit Tech Review:

✓

SURFACE: 0220 FSL 1060 FWL Engineering Review:

BOTTOM: 0630 FSL 2453 FWL Geology Review:

COUNTY: UINTAH

LATITUDE: 39.97117 **LONGITUDE:** -109.35650

UTM SURF EASTINGS: 640351.00 **NORTHINGS:** 4425851.00

FIELD NAME: NATURAL BUTTES
LEASE TYPE: 1 - Federal

LEASE NUMBER: UTU73450 **PROPOSED PRODUCING FORMATION(S):** WASATCH-MESA VERDE

SURFACE OWNER: 1 - Federal COALBED METHANE: NO

RECEIVED AND/OR REVIEWED: LOCATION AND SITING:

▶ PLAT R649-2-3.

Bond: FEDERAL - WYB000291 Unit:

Potash R649-3-2. General

Oil Shale 190-5

Oil Shale 190-3 R649-3-3. Exception

Water Permit: 43-8496 Board Cause No: Cause 179-14

RDCC Review: Effective Date: 6/12/2008

Fee Surface Agreement Siting: 460' Fr Ext Drl Unit Boundary

✓ Intent to Commingle
✓ R649-3-11. Directional Drill

Commingling Approved

Comments: Presite Completed

Stipulations: 1 - Exception Location - dmason

3 - Commingling - ddoucet 4 - Federal Approval - dmason 15 - Directional - dmason API Well No: 43047520800000



State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

Permit To Drill

Well Name: BONANZA 1023-5N4AS

API Well Number: 43047520800000

Lease Number: UTU73450 **Surface Owner:** FEDERAL **Approval Date:** 10/26/2011

Issued to:

KERR-MCGEE OIL & GAS ONSHORE, L.P., P.O. Box 173779, Denver, CO 80217

Authority:

Pursuant to Utah Code Ann. §40-6-1 et seq., and Utah Administrative Code R649-3-1 et seq., the Utah Division of Oil, Gas and Mining issues conditions of approval, and permit to drill the listed well. This permit is issued in accordance with the requirements of Cause 179-14. The expected producing formation or pool is the WASATCH-MESA VERDE Formation(s), completion into any other zones will require filing a Sundry Notice (Form 9). Completion and commingling of more than one pool will require approval in accordance with R649-3-22.

Duration:

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date

Exception Location:

Appropriate information has been submitted to DOGM and administrative approval of the requested exception location is hereby granted.

Commingle:

In accordance with Board Cause No. 179-14, commingling of the production from the Wasatch formation and the Mesaverde formation in this well is allowed.

General:

Compliance with the requirements of Utah Admin. R. 649-1 et seq., the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

Conditions of Approval:

State approval of this well does not supercede the required federal approval, which must be obtained prior to drilling.

In accordance with Utah Admin. R.649-3-11, Directional Drilling, the operator shall submit a complete angular deviation and directional survey report to the Division within 30 days following completion of the well.

Notification Requirements:

API Well No: 43047520800000

The operator is required to notify the Division of Oil, Gas and Mining of the following actions during drilling of this well:

• Within 24 hours following the spudding of the well – contact Carol Daniels at 801-538-5284 (please leave a voicemail message if not available) OR

submit an electronic sundry notice (pre-registration required) via the Utah Oil & Gas website at http://oilgas.ogm.utah.gov

Reporting Requirements:

All reports, forms and submittals as required by the Utah Oil and Gas Conservation General Rules will be promptly filed with the Division of Oil, Gas and Mining, including but not limited to:

- Entity Action Form (Form 6) due within 5 days of spudding the well
- Monthly Status Report (Form 9) due by 5th day of the following calendar month
- Requests to Change Plans (Form 9) due prior to implementation
- Written Notice of Emergency Changes (Form 9) due within 5 days
- Notice of Operations Suspension or Resumption (Form 9) due prior to implementation
- Report of Water Encountered (Form 7) due within 30 days after completion
- Well Completion Report (Form 8) due within 30 days after completion or plugging

Approved By:

For John Rogers Associate Director, Oil & Gas

RECEIVED

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

JUL 2 2 2011

FORM APPROVED OMB No. 1004-0136 Expires July 31, 2010

5. Lease Serial No. UTU73450

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APPLICATION FOR PERMIT	TO DRILL OR REENT	6. If Indian, Allottee of	r Tribe Name
1a. Type of Work: ☐ REENTER		7. If Unit or CA Agree CA-UTU-74473	ment, Name and No.
1b. Type of Well: ☐ Oil Well ☐ Gas Well ☐ O	other 🔲 Single Zone 🔀	8. Lease Name and We BONANZA 1023-5	ell No. N4AS
	GINA T RECKER	9. API Well No.	200
3a. Address	3b. Phone No. (include area code)	43-047-5	HOXO
P.O. BOX 173779 DENVER, CO 80202-3779	Ph: 720-929-6086 Fx: 720-929-7086	10. Field and Pool, or I BONANZA	Exploratory
4. Location of Well (Report location clearly and in accord	lance with any State requirements.*)	11. Sec., T., R., M., or	Blk. and Survey or Area
At surface SWSW 220FSL 1060FWI	. 39.971304 N Lat, 109.356338 W	Lon Sec 5 T10S R23	E Mer SLB
At proposed prod. zone SESW 630FSL 2453FWL		Lon	
14. Distance in miles and direction from nearest town or pos APPROXIMATELY 49 MILES SOUTHEAST O	t office* F VERNAL, UTAH	12. County or Parish UINTAH	13. State UT
 Distance from proposed location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 	16. No. of Acres in Lease	17. Spacing Unit dedica	ated to this well
630	80.00		
 Distance from proposed location to nearest well, drilling, completed, applied for, on this lease, ft. 	19. Proposed Depth	20. BLM/BIA Bond No	o. on file
140	8628 MD 8389 TVD	WYB000291	
21. Elevations (Show whether DF, KB, RT, GL, etc. 5297 GL	22. Approximate date work will start 12/31/2011	23. Estimated duration 60-90 DAYS	
	24. Attachments		
The following, completed in accordance with the requirements	of Onshore Oil and Gas Order No. 1, shall	be attached to this form:	
 Well plat certified by a registered surveyor. A Drilling Plan. A Surface Use Plan (if the location is on National Forest Sys SUPO shall be filed with the appropriate Forest Service On 	4. Bond to confirm 20 ab	over the operations unless covered by an ex ove). ertification site specific information and/or plans as m	
25. Signature (Electronic Submission)	Name (Printed/Typed) GINA T BECKER Ph: 720-	929-6086	Date 07/08/2011
Title REGULATORY ANALYST II			
Approved by (Signature)	Name (Printed/Typed) Jerry K	enczka	Date JAN 3 0 2012
Assistant Field Manager Lands & Mineral Resources	Office VERNAL FIELD	_	
Application approval does not warrant or certify the applicant he perations thereon.	olds legal or equitable title to those rights	n the subject lease which would entitle the	applicant to conduct
Sonditions of approval, if any, are attached.	CONDITIONS OF APPRO	OVAL ATTACHED	
Fitle 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, states any false, fictitious or fraudulent statements or representations.	make it a crime for any person knowingly	and willfully to make to any done to any	r agency of the United

Additional Operator Remarks (see next page)

Electronic Submission #112538 verified by the BLM Well Information STREET EIVED For KERR-MCGEE OIL & GAS ONSHORE, sent to the Vernal

NOTICE OF APPROVAL

UDOGN

FEB 0 3 2012

DIV. OF OIL, GAS & MINING

** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED **

106XJ2803AE

NOS-04/14/2010



UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT VERNAL FIELD OFFICE

170 South 500 East VERNAL, UT 84078

(435) 781-4400



CONDITIONS OF APPROVAL FOR APPLICATION FOR PERMIT TO DRILL

Company: Well No:

Kerr-McGee Oil & Gas Onshore, LP

Bonanza 1023-5N4AS

API No: 43-047-52080

Location: Lease No: SWSW, Sec. 5, T10S, R23E

UTU-73450

Agreement:

OFFICE NUMBER:

(435) 781-4400

OFFICE FAX NUMBER:

(435) 781-3420

A COPY OF THESE CONDITIONS SHALL BE FURNISHED TO YOUR FIELD REPRESENTATIVE TO INSURE COMPLIANCE

All lease and/or unit operations are to be conducted in such a manner that full compliance is made with the applicable laws, regulations (43 CFR Part 3160), and this approved Application for Permit to Drill including Surface and Downhole Conditions of Approval. The operator is considered fully responsible for the actions of his subcontractors. A copy of the approved APD must be on location during construction, drilling, and completion operations. This permit is approved for a two (2) year period, or until lease expiration, whichever occurs first. An additional extension, up to two (2) years, may be applied for by sundry notice prior to expiration.

NOTIFICATION REQUIREMENTS

Location Construction (Notify Environmental Scientist)	-	Forty-Eight (48) hours prior to construction of location and access roads.
Location Completion (Notify Environmental Scientist)	_	Prior to moving on the drilling rig.
Spud Notice (Notify Petroleum Engineer)	_	Twenty-Four (24) hours prior to spudding the well.
Casing String & Cementing (Notify Supv. Petroleum Tech.)	-	Twenty-Four (24) hours prior to running casing and cementing all casing strings to: blm_ut_vn_opreport@blm.gov
BOP & Related Equipment Tests (Notify Supv. Petroleum Tech.)	-	Twenty-Four (24) hours prior to initiating pressure tests.
First Production Notice (Notify Petroleum Engineer)	_	Within Five (5) business days after new well begins or production resumes after well has been off production for more than ninety (90) days.

SURFACE USE PROGRAM CONDITIONS OF APPROVAL (COAs)

- All new and replacement internal combustion gas field engines of less than or equal to 300 designrated horse power must not emit more than 2 grams of NOx per horsepower-hour. This requirement does not apply to gas field engines of less than or equal to 40 design-rated horsepower-hour.
- All new and replacement internal combustion gas field engines of greater than 300 design rated horsepower must not emit more than 1.0 gram of NOx per horsepower-hour.
- Construction or drilling is not allowed for the Bonanza 1023-5M and Bonanza 1023-5P pads from January 1 August 31 to minimize impacts during golden eagle nesting.
- If it is anticipated that construction or drilling will occur during the given timing restriction, a BLM or qualified biologist shall be notified to conduct surveys for raptors. Depending upon the results of the surveys, permission to proceed may or may not be granted by the Authorized Officer.
- All reclamation will comply with the Green River Reclamation Guidelines
- All vehicles and equipment shall be cleaned either through power-washing, or other approved method, if the vehicles or equipment were previously operated outside the Uinta Basin, to prevent weed seed introduction.
- All disturbance areas shall be monitored for noxious weeds annually, for a minimum of three growing seasons following completion of project or until desirable vegetation is established
- Noxious and invasive weeds will be controlled throughout the area of project disturbance.
- Noxious weeds will be inventoried and reported to BLM in the annual reclamation report. Where an
 integrated pest management program is applicable, coordination has been undertaken with the
 state and local management program (if existing). A copy of the pest management plan will be
 submitted for each project.
- A pesticide use permit (PUP) will be obtained for the project, if applicable.
- A permitted paleontologist is to be present to monitor construction at well pads 1023-5C, 5D, 5K, 5L, 5M and 5P during all surface disturbing actives: examples include the following building of the well pad, access road, and pipelines.
- The best method to avoid entrainment is to pump from an off-channel location one that does not connect to the river during high spring flows. An infiltration gallery constructed in a BLM and Service approved location is best.
- If the pump head is located in the river channel where larval fish are known to occur, the following measures apply:
 - a. do not situate the pump in a low-flow or no-flow area as these habitats tend to concentrate larval fishes:
 - b. limit the amount of pumping, to the greatest extent possible, during that period of the year when larval fish may be present (April 1 to August 31); and

Page 3 of 7 Well: BONANZA 1023-5N4AS 1/11/2012

- c. limit the amount of pumping, to the greatest extent possible, during the pre-dawn hours as larval drift studies indicate that this is a period of greatest daily activity.
- Screen all pump intakes with 3/32" mesh material.
- Approach velocities for intake structures will follow the National Marine Fisheries Service's
 document "Fish Screening Criteria for Anadromous Salmonids". For projects with an in-stream
 intake that operate in stream reaches where larval fish may be present, the approach velocity will
 not exceed 0.33 feet per second (ft/s).
- Report any fish impinged on the intake screen to the Service (801.975.3330) and the Utah Division of Wildlife Resources:

Northeastern Region 152 East 100 North, Vernal, UT 84078 Phone: (435) 781-9453

• Discovery Stipulation: Reinitiation of section 7 consultation with the USFWS will be sought immediately if any loss of plants or occupied habitat for Pariette cactus or Uinta Basin hookless cactus is anticipated as a result of project activities.

DOWNHOLE PROGRAM CONDITIONS OF APPROVAL (COAs)

SITE SPECIFIC DOWNHOLE COAs:

- Gamma ray Log shall be run from Total Depth to Surface.
- Cement for the production casing must be brought 200' above the surface casing shoe.
- CBL will be run from TD to TOC.

Variances Granted: Air Drilling

- Properly lubricated and maintained rotating head. Variance granted to use a properly maintained and lubricated diverter bowl in place of a rotating head.
- Blooie line discharge 100' from the well bore. Variance granted for blooie line discharge to be 45' from the well bore.
- Compressors located in the opposite direction from the blooie line a minimum of 100' from the well bore. Variance granted for truck/trailer mounted air compressors located 40'from the well bore.
- In lieu of mud products on location, Kerr McGee will fill the reserve pit with water for the kill medium and will utilize a skid pump near the reserve pit to supply the water to the well bore if necessary.
- Automatic igniter. Variance granted for igniter due to there being no productive formations encountered while air drilling.

All provisions outlined in Onshore Oil & Gas Order #2 Drilling Operations shall be strictly adhered to. The following items are emphasized:

DRILLING/COMPLETION/PRODUCING OPERATING STANDARDS

- The spud date and time shall be reported orally to Vernal Field Office within 24 hours of spudding.
- Notify Vernal Field Office Supervisory Petroleum Engineering Technician at least 24 hours in advance of casing cementing operations and BOPE & casing pressure tests.
- All requirements listed in Onshore Order #2 III. E. Special Drilling Operations are applicable for air drilling of surface hole.
- Blowout prevention equipment (BOPE) shall remain in use until the well is completed or abandoned. Closing unit controls shall remain unobstructed and readily accessible at all times. Choke manifolds shall be located outside of the rig substructure.
- All BOPE components shall be inspected daily and those inspections shall be recorded in the daily drilling report. Components shall be operated and tested as required by Onshore Oil & Gas Order No. 2 to insure good mechanical working order. All BOPE pressure tests shall be performed by a

test pump with a chart recorder and <u>NOT</u> by the rig pumps. Test shall be reported in the driller's log.

- BOP drills shall be initially conducted by each drilling crew within 24 hours of drilling out from under the surface casing and weekly thereafter as specified in Onshore Oil & Gas Order No. 2.
- Casing pressure tests are required before drilling out from under all casing strings set and cemented in place.
- No aggressive/fresh hard-banded drill pipe shall be used within casing.
- Cement baskets shall not be run on surface casing.
- The operator must report all shows of water or water-bearing sands to the BLM. If flowing water is
 encountered it must be sampled, analyzed, and a copy of the analyses submitted to the BLM Vernal
 Field Office.
- The operator must report encounters of all non oil & gas mineral resources (such as Gilsonite, tar sands, oil shale, trona, etc.) to the Vernal Field Office, in writing, within 5 working days of each encounter. Each report shall include the well name/number, well location, date and depth (from KB or GL) of encounter, vertical footage of the encounter and, the name of the person making the report (along with a telephone number) should the BLM need to obtain additional information.
- A complete set of angular deviation and directional surveys of a directional well will be submitted to the Vernal BLM office engineer within 30 days of the completion of the well.
- While actively drilling, chronologic drilling progress reports shall be filed directly with the BLM,
 Vernal Field Office on a weekly basis in sundry, letter format or e-mail to the Petroleum Engineers until the well is completed.
- A cement bond log (CBL) will be run from the production casing shoe to the top of cement and shall be utilized to determine the bond quality for the production casing. Submit a field copy of the CBL to this office.
- Please submit an electronic copy of all other logs run on this well in LAS format to BLM_UT_VN_Welllogs@BLM.gov. This submission will supersede the requirement for submittal of paper logs to the BLM.
- There shall be no deviation from the proposed drilling, completion, and/or workover program as approved. Safe drilling and operating practices must be observed. Any changes in operation must have prior approval from the BLM Vernal Field Office.

OPERATING REQUIREMENT REMINDERS:

- All wells, whether drilling, producing, suspended, or abandoned, shall be identified in accordance with 43 CFR 3162.6. There shall be a sign or marker with the name of the operator, lease serial number, well number, and surveyed description of the well.
- For information regarding production reporting, contact the Office of Natural Resources Revenue (ONRR) at <u>www.ONRR.gov</u>.
- Should the well be successfully completed for production, the BLM Vernal Field office must be
 notified when it is placed in a producing status. Such notification will be by written communication
 and must be received in this office by not later than the fifth business day following the date on
 which the well is placed on production. The notification shall provide, as a minimum, the following
 informational items:
 - o Operator name, address, and telephone number.
 - Well name and number.
 - Well location (¼¼, Sec., Twn, Rng, and P.M.).
 - Date well was placed in a producing status (date of first production for which royalty will be paid).
 - The nature of the well's production, (i.e., crude oil, or crude oil and casing head gas, or natural gas and entrained liquid hydrocarbons).
 - The Federal or Indian lease prefix and number on which the well is located; otherwise the non-Federal or non-Indian land category, i.e., State or private.
 - o Unit agreement and/or participating area name and number, if applicable.
 - Communitization agreement number, if applicable.
- Any venting or flaring of gas shall be done in accordance with Notice to Lessees (NTL) 4A and needs prior approval from the BLM Vernal Field Office.
- All undesirable events (fires, accidents, blowouts, spills, discharges) as specified in NTL 3A will be
 reported to the BLM, Vernal Field Office. Major events, as defined in NTL3A, shall be reported
 verbally within 24 hours, followed by a written report within 15 days. "Other than Major Events" will
 be reported in writing within 15 days. "Minor Events" will be reported on the Monthly Report of
 Operations and Production.
- Whether the well is completed as a dry hole or as a producer, "Well Completion and Recompletion Report and Log" (BLM Form 3160-4) shall be submitted not later than 30 days after completion of the well or after completion of operations being performed, in accordance with 43 CFR 3162.4-1. Two copies of all logs run, core descriptions, and all other surveys or data obtained and compiled during the drilling, workover, and/or completion operations, shall be filed on BLM Form 3160-4. Submit with the well completion report a geologic report including, at a minimum, formation tops, and a summary and conclusions. Also include deviation surveys, sample descriptions, strip logs,

core data, drill stem test data, and results of production tests if performed. Samples (cuttings, fluid, and/or gas) shall be submitted only when requested by the BLM, Vernal Field Office.

- All off-lease storage, off-lease measurement, or commingling on-lease or off-lease, shall have prior written approval from the BLM Vernal Field Office.
- Oil and gas meters shall be calibrated in place prior to any deliveries. The BLM Vernal Field Office
 Petroleum Engineers will be provided with a date and time for the initial meter calibration and all
 future meter proving schedules. A copy of the meter calibration reports shall be submitted to the
 BLM Vernal Field Office. All measurement facilities will conform to the API standards for liquid
 hydrocarbons and the AGA standards for natural gas measurement. All measurement points shall
 be identified as the point of sale or allocation for royalty purposes.
- A schematic facilities diagram as required by Onshore Oil & Gas Order No. 3 shall be submitted to the BLM Vernal Field Office within 30 days of installation or first production, whichever occurs first. All site security regulations as specified in Onshore Oil & Gas Order No. 3 shall be adhered to. All product lines entering and leaving hydrocarbon storage tanks will be effectively sealed in accordance with Onshore Oil & Gas Order No. 3.
- Any additional construction, reconstruction, or alterations of facilities, including roads, gathering
 lines, batteries, etc., which will result in the disturbance of new ground, shall require the filing of a
 suitable plan and need prior approval of the BLM Vernal Field Office. Emergency approval may be
 obtained orally, but such approval does not waive the written report requirement.
- No location shall be constructed or moved, no well shall be plugged, and no drilling or workover
 equipment shall be removed from a well to be placed in a suspended status without prior approval
 of the BLM Vernal Field Office. If operations are to be suspended for more than 30 days, prior
 approval of the BLM Vernal Field Office shall be obtained and notification given before resumption
 of operations.
- Pursuant to Onshore Oil & Gas Order No. 7, this is authorization for pit disposal of water produced from this well for a period of 90 days from the date of initial production. A permanent disposal method must be approved by this office and in operation prior to the end of this 90-day period. In order to meet this deadline, an application for the proposed permanent disposal method shall be submitted along with any necessary water analyses, as soon as possible, but no later than 45 days after the date of first production. Any method of disposal which has not been approved prior to the end of the authorized 90-day period will be considered as an Incident of Noncompliance and will be grounds for issuing a shut-in order until an acceptable manner for disposing of said water is provided and approved by this office.
- Unless the plugging is to take place immediately upon receipt of oral approval, the Field Office Petroleum Engineers must be notified at least 24 hours in advance of the plugging of the well, in order that a representative may witness plugging operations. If a well is suspended or abandoned, all pits must be fenced immediately until they are backfilled. The "Subsequent Report of Abandonment" (Form BLM 3160-5) must be submitted within 30 days after the actual plugging of the well bore, showing location of plugs, amount of cement in each, and amount of casing left in hole, and the current status of the surface restoration.

	STATE OF UTAH DEPARTMENT OF NATURAL RESOURCES		FORM 9
	3	5.LEASE DESIGNATION AND SERIAL NUMBER: UTU73450	
SUNDR	RY NOTICES AND REPORTS ON	WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
	posals to drill new wells, significantly deep reenter plugged wells, or to drill horizontal I n for such proposals.		7.UNIT or CA AGREEMENT NAME:
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: BONANZA 1023-5N4AS
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	ISHORE, L.P.		9. API NUMBER: 43047520800000
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18tl	PHC h Street, Suite 600, Denver, CO, 80217 377	NE NUMBER: 720 929-6	9. FIELD and POOL or WILDCAT: 5NIATUERAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0220 FSL 1060 FWL			COUNTY: UINTAH
QTR/QTR, SECTION, TOWNSH	HIP, RANGE, MERIDIAN: 05 Township: 10.0S Range: 23.0E Meridian:	S	STATE: UTAH
11. CHEC	K APPROPRIATE BOXES TO INDICATE N	ATURE OF NOTICE, REPOR	T, OR OTHER DATA
TYPE OF SUBMISSION		TYPE OF ACTION	
	ACIDIZE	ALTER CASING	CASING REPAIR
NOTICE OF INTENT	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME
Approximate date work will start:	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE
SUBSEQUENT REPORT Date of Work Completion:		FRACTURE TREAT	NEW CONSTRUCTION
Date of Work Completion.		PLUG AND ABANDON	PLUG BACK
SPUD REPORT Date of Spud:		RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION
4/18/2012	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	LI TEMPORARY ABANDON
DRILLING REPORT	L TUBING REPAIR L \	/ENT OR FLARE	WATER DISPOSAL
Report Date:	WATER SHUTOFF S	SI TA STATUS EXTENSION	APD EXTENSION
	WILDCAT WELL DETERMINATION	OTHER	OTHER:
MIRU TRIPLE A BU RAN 14" 36.7# SCH	COMPLETED OPERATIONS. Clearly show all pe ICKET RIG. DRILLED 20" CONDUC EDULE 10 CONDUCTOR PIPE. C ELL LOCATION ON APRIL 18,201	CTOR HOLE TO 40'. MT W/28 SX READY	Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY May 02, 2012
NAME (PLEASE PRINT) Gina Becker	PHONE NUMBER 720 929-6086	TITLE Regulatory Analyst II	
SIGNATURE N/A		DATE 4/25/2012	
		., _ 0, _ 0	

STATE OF UTAH

DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS AND MINING

ENTITY ACTION FORM

Operator:

KERR McGEE OIL & GAS ONSHORE LP

Operator Account Number: N 2995

Address:

P.O. BOX 173779

city DENVER

state CO zip 80217 Phone Number: (720) 929-6086

Well 1

ر کال	API Number	Well	QQ	Sec	Twp	Rng	County	
İ	4304752080	BONANZA 1023-5N	SWSW 5 10S			23E	UINTAH	
	Action Code	Current Entity Number	New Entity Number	Spud Date			ity Assignment ffective Date	
	A	99999	1849,4	4/18/2012			413	30 12012

SPUD WELL ON 04/18/2012 AT 0930 HRS.

WSMVD

Well 2

API Number	Well	QQ	Sec	Twp	Rng	County		
4304752079	BONANZA 1023-5N:	swsw	SWSW 5 10S			UINTAH		
Action Code	Current Entity New Entity Number Number		Spud Date		Spud Date		Entity Assignment Effective Date	
A	99999	18488	4/18/2012			41	30 12012	

Well 3

API Number	Weil	QQ	Sec	Twp	Rng	County	
4304752081	BONANZA 1023-8C	2DS	swsw	5	108	23E	UINTAH
Action Code	Current Entity Number	New Entity Number	Si	Spud Date			ty Assignment fective Date
A	99999	1850	4/18/2012			4	30 1300

MIRU TRIPPLE A BUCKET RIG. SPUD WELL ON 04/18/2012 AT 1600 HRS.

ACTION CODES:

(5/2000)

- A Establish new entity for new well (single well only)
- **B** Add new well to existing entity (group or unit well)
- C Re-assign well from one existing entity to another existing entity
- D Re-assign well from one existing entity to a new entity
- E Other (Explain in 'comments' section)

RECEIVED

APR 2 7 2012

Div. of Oil. Gas & Mining

GINA BECKER

Name (Please Print)

Signature

SR. REGULATORY ANALYST

4/25/2012

Date

	STATE OF UTAH		FORM 9
ι	DEPARTMENT OF NATURAL RESOURCE DIVISION OF OIL, GAS, AND MIN	=	5.LEASE DESIGNATION AND SERIAL NUMBER: UTU73450
SUNDR	ON WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:	
	posals to drill new wells, significantly reenter plugged wells, or to drill horizo n for such proposals.		7.UNIT or CA AGREEMENT NAME:
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: BONANZA 1023-5N4AS
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	ISHORE, L.P.		9. API NUMBER: 43047520800000
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th	n Street, Suite 600, Denver, CO, 80217	PHONE NUMBER: 7 3779 720 929-6	9. FIELD and POOL or WILDCAT: 5NATUBRAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0220 FSL 1060 FWL			COUNTY: UINTAH
QTR/QTR, SECTION, TOWNSH	HP, RANGE, MERIDIAN: 05 Township: 10.0S Range: 23.0E Merio	dian: S	STATE: UTAH
11. CHECI	K APPROPRIATE BOXES TO INDICA	TE NATURE OF NOTICE, REPOR	RT, OR OTHER DATA
TYPE OF SUBMISSION		TYPE OF ACTION	
	ACIDIZE	ALTER CASING	CASING REPAIR
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME
	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	FRACTURE TREAT	NEW CONSTRUCTION
	OPERATOR CHANGE	PLUG AND ABANDON	PLUG BACK
SPUD REPORT	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION
Date of Spud:	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON
	TUBING REPAIR	VENT OR FLARE	WATER DISPOSAL
DRILLING REPORT Report Date:	WATER SHUTOFF	SI TA STATUS EXTENSION	APD EXTENSION
4/26/2012	WILDCAT WELL DETERMINATION	OTHER	OTHER:
MIRU AIR RIG ON 4 SURFACE CASING	COMPLETED OPERATIONS. Clearly show a 4/23/2012. DRILLED SURFAC AND CEMENTED. WELL IS WA NT JOB WILL BE INCLUDED WI REPORT.	E HOLE TO 2460'. RAN AITING ON ROTARY RIG.	Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY May 09, 2012
NAME (PLEASE PRINT)	PHONE NUMB	ER TITLE	Way 03, 2012
Gina Becker	720 929-6086	Regulatory Analyst II	
SIGNATURE N/A		DATE 4/26/2012	

State of Utah - Notification Form

Operator <u>Anadarko Petroleum</u> Rig Name/# <u>Ensign 138</u> Submitted By <u>DALTON KING</u> Phone Number <u>435- 828-0982</u> Well Name/Number <u>BONANZA 1023-5N4AS</u>	
Qtr/Qtr <u>SW/SW</u> Section <u>5</u> Township <u>10S</u> Range 23E Lease Serial Number <u>UTU73450</u>	
API Number43-047-52080 ø	
<u>Casing</u> – Time casing run starts, not cementing times.	
Production Casing Other	
Date/Time AM PM	
BOPE Initial BOPE test at surface casing point Other	
Date/Time <u>5/22/2012</u> <u>14:00</u> AM PM	
Rig Move Location To: RECEIVEI MAY 2 2 2012)
Date/Time AM DM PM DM	
Remarks TIME IS ESTIMATED	

Sundry Number: 25659 API Well Number: 43047520800000 FEDERAL APPROVAL OF THIS ACTION IS NECESSARY

	STATE OF UTAH		FORM 9
	DEPARTMENT OF NATURAL RESOURCE DIVISION OF OIL, GAS, AND MIN		5.LEASE DESIGNATION AND SERIAL NUMBER: UTU73450
SUNDR	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:		
	posals to drill new wells, significantly d reenter plugged wells, or to drill horizon n for such proposals.		7.UNIT or CA AGREEMENT NAME: PONDEROSA
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4. LOCATION OF WELL FOOTAGES AT SURFACE: 0220 FSL 1060 FWL			COUNTY: UINTAH
QTR/QTR, SECTION, TOWNSH	HIP, RANGE, MERIDIAN: 05 Township: 10.0S Range: 23.0E Meridi	ian: S	STATE: UTAH
11. CHEC	K APPROPRIATE BOXES TO INDICAT	E NATURE OF NOTICE, REPOR	RT, OR OTHER DATA
TYPE OF SUBMISSION		TYPE OF ACTION	
✓ NOTICE OF INTENT	ACIDIZE	ALTER CASING	CASING REPAIR
Approximate date work will start: 5/14/2012	✓ CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME
3/14/2012	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	FRACTURE TREAT	NEW CONSTRUCTION
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SPUD REPORT	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION
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DRILLING REPORT Report Date:	WATER SHUTOFF	SI TA STATUS EXTENSION	APD EXTENSION
· ·	WILDCAT WELL DETERMINATION	OTHER	OTHER:
THE OPERATOR R LOOP DRILLING O OTHER ASPECTS O	COMPLETED OPERATIONS. Clearly show a LEQUESTS APPROVAL FOR A F PTION, AND A PRODUCTION (OF THE PREVIOUSLY APPROVE E. PLEASE SEE THE ATTACHM	TT WAIVER, A CLOSED CASING CHANGE. ALL D DRILLING PLAN WILL	Accepted by the Utah Division of Oil, Gas and Mining Date: May 24, 2012 By: Day L. Durf
NAME (PLEASE PRINT) Cara Mahler	PHONE NUMBE		
SIGNATURE	720 929-6029	Regulatory Analyst I DATE	
N/A		5/14/2012	

BONANZA 1023-5N4AS Drilling Program
1 of 7

Kerr-McGee Oil & Gas Onshore. L.P.

BONANZA 1023-5N4AS

Surface: 220 FSL / 1060 FWL SWSW

BHL: 630 FSL / 2453 FWL SESW

Section 5 T10S R23E

Uintah County, Utah Mineral Lease: UTU-73450

ONSHORE ORDER NO. 1

DRILLING PROGRAM

1. & 2. <u>Estimated Tops of Important Geologic Markers</u>: <u>Estimated Depths of Anticipated Water, Oil, Gas, or Mineral Formations</u>:

<u>Formation</u>	<u>Depth</u>	<u>Resource</u>
Uinta	0 - Surface	
Green River	1,211'	
Birds Nest	1,469'	Water
Mahogany	1,823'	Water
Wasatch	4,181'	Gas
Mesaverde	6,254'	Gas
Sego	8,389'	Gas
TVD	8,389'	
TD	8,628'	

3. <u>Pressure Control Equipment</u> (Schematic Attached)

Please refer to the attached Drilling Program

4. <u>Proposed Casing & Cementing Program:</u>

Please refer to the attached Drilling Program

5. <u>Drilling Fluids Program:</u>

Please refer to the attached Drilling Program

Evaluation Program:

Please refer to the attached Drilling Program

BONANZA 1023-5N4AS Drilling Program
2 of 7

7. <u>Abnormal Conditions</u>:

Maximum anticipated bottom hole pressure calculated at 8389' TVD, approximately equals 5,369 psi 0.64 psi/ft = actual bottomhole gradient

Maximum Anticipated Bottom Hole Pressure (MABHP) = Pore Pressure at TD

Maximum anticipated surface pressure equals approximately 3,512 psi (bottom hole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot, per Onshore Order No. 2).

Per Onshore Order No. 2 - Max Anticipated Surf. Press.(MASP) = (Pore Pressure at next csg point-(0.22 psi/ft-partial evac gradient x TVD of next csg point))

8. <u>Anticipated Starting Dates:</u>

Drilling is planned to commence immediately upon approval of this application.

9. <u>Variances:</u>

Please refer to the attached Drilling Program. Onshore Order #2 – Air Drilling Variance

Kerr-McGee Oil & Gas Onshore LP (KMG) respectfully requests a variance to several requirements associated with air drilling outlined in Onshore Order 2

- · Blowout Prevention Equipment (BOPE) requirements;
- · Mud program requirements; and
- Special drilling operation (surface equipment placement) requirements associated with air drilling.

This Standard Operating Practices addendum provides supporting information as to why KMG current air drilling practices for constructing the surface casing hole should be granted a variance to Onshore Order 2 air drilling requirements.

The reader should note that the air rig is used only to construct a stable surface casing hole through a historically difficult lost circulation zone. A conventional rotary rig follows the air rig, and is used to drill and construct the majority of the wellbore.

More notable, KMG has used the air rig layout and procedures outlined below to drill the surface casing hole in approximately 675 wells without incident of blow out or loss of life.

Background

In a typical well, KMG utilizes an air rig for drilling the surface casing hole, an interval from the surface to surface casing depths, which varies in depth from 1,700 to 2,800 feet. The air rig drilling operation does not drill through productive or over pressured formations in KMG field, but does penetrate the Uinta and Green River Formations. The purpose of the air drilling operation is to overcome the severe loss circulation zone in the Green River known as the Bird's Nest while creating a stable hole for the surface casing. The surface casing hole is generally drilled to approximately 500 feet below the Bird's Nest.

BONANZA 1023-5N4AS Drilling Program
3 of 7

Before the surface air rig is mobilized, a rathole rig is utilized to set and cement conductor pipe through a competent surface formation. Generally, the conductor is set at 40 feet. In some cases, conductor may be set deeper in areas that the surface formation is not found competent. This rig also drills the rat and mouse holes in preparation for the surface casing and production string drilling operations.

The air rig is then mobilized to drill the surface casing hole by drilling a 12 1/4 inch hole for the first 200 feet, then will drill a 11inch hole to just above the Bird's Nest interval with an air hammer. The hammer is then tripped and replaced with a 11 inch tri-cone bit. The tri-cone bit is used to drill to the surface casing point, approximately 500 feet below the loss circulation zone (Bird's Nest). The 8-5/8 inch surface casing is then run and cemented in place, thereby isolating the lost circulation zone.

KMG fully appreciates Onshore Order 2 well control and safety requirements associated with a typical air drilling operations. However, the requirements of Onshore Order 2 are excessive with respect to the air rig layout and drilling operation procedures that are currently in practice to drill and control the surface casing hole in KMG Fields.

Variance for BOPE Requirements

The air rig operation utilizes a properly lubricated and maintained air bowl diverter system which diverts the drilling returns to a six-inch blooie line. The air bowl is the only piece of BOPE equipment which is installed during drilling operations and is sufficient to contain the air returns associated with this drilling operation. As was discussed earlier, the drilling of the surface hole does not encounter any over pressured or productive zones, and as a result standard BOPE equipment should not be required. In addition, standard drilling practices do not support the use of BOPE on 40 feet of conductor pipe.

Variance for Mud Material Requirements

Onshore Order 2 also states that sufficient quantities of mud materials shall be maintained or readily accessible for the purpose of assuring adequate well control. Once again, the surface hole drilling operations does not encounter over pressured or productive intervals, and as a result there is not a need to control pressure in the surface hole with a mud system. Instead of mud, the air rigs utilize water from the reserve pit for well control, if necessary. A skid pump which is located near the reserve pit (see attachment) will supply the water to the well bore.

Variance for Special Drilling Operation (surface equipment placement) Requirements

Onshore Order 2 requires specific safety distances or setbacks for the placement of associated standard air drilling equipment, wellbore, and reserve pits. The air rigs used to drill the surface holes are not typical of an air rig used to drill a producing hole in other parts of the US. These are smaller in nature and designed to fit a KMG location. The typical air rig layout for drilling surface hole in the field is attached.

Typically the blooie line discharge point is required to be 100 feet from the well bore. In the case of a KMG well, the reserve pit is only 45 feet from the rig and is used for the drill cuttings. The blooie line, which transports the drill cuttings from the well to the reserve pit, subsequently discharges only 45 feet from the well bore.

Typically the air rig compressors are required to be located in the opposite direction from the blooie line and a minimum of 100 feet from the well bore. At the KMG locations, the air rig compressors are approximately 40 feet from the well bore and approximately 60 feet from the blooie line discharge due to the unique air rig design. The air compressors (see attachment) are located on the rig (1250 cfm) and

BONANZA 1023-5N4AS Drilling Program
4 of 7

on a standby trailer (1170 cfm). A booster sits between the two compressors and boosts the output from 350 psi to 2000 psi. The design does put the booster and standby compressor opposite from the blooie line.

Lastly, Onshore Order 2 addresses the need for an automatic igniter or continuous pilot light on the blooie line. The air rig does not utilize an igniter as the surface hole drilling operation does not encounter productive formations.

Variance for FIT Requirements

KMG also respectfully requests a variance to Onshore Order 2, Section III, Part Bi, for the pressure integrity test (PIT, also known as a formation integrity test (FIT)). This well is not an exploratory well and is being drilled in an area where the formation integrity is well known. Additionally, when an FIT is run with the mud weight as required, the casing shoe frequently breaks down and causes subsequent lost circulation when drilling the entire depth of the well.

Conclusion

The air rig operating procedures and the attached air rig layout have effectively maintained well control while drilling the surface holes in KMG Fields. KMG respectfully requests a variance from Onshore Order 2 with respect to air drilling well control requirements as discussed above.

10. <u>Other Information:</u>

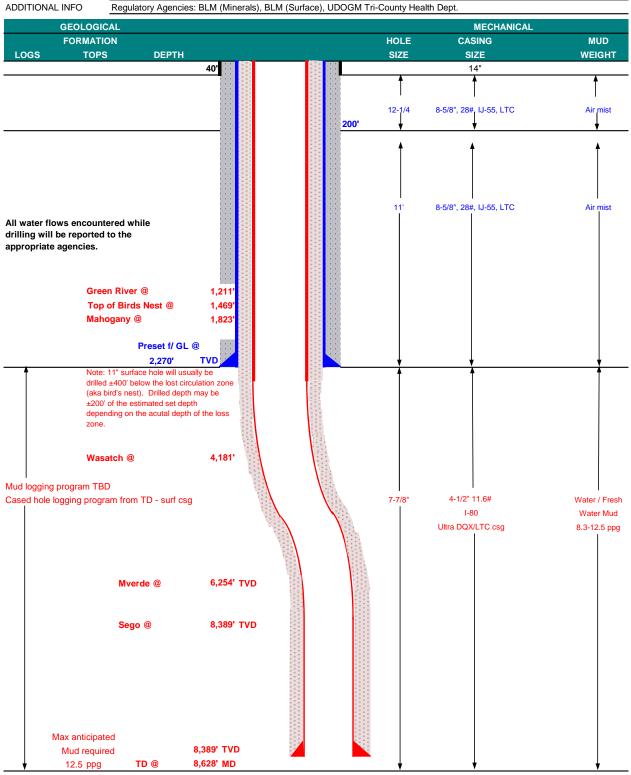
Please refer to the attached Drilling Program.

BONANZA 1023-5N4AS Drilling Program
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KERR-McGEE OIL & GAS ONSHORE LP DRILLING PROGRAM

COMPANY NAME KERR-McGEE OIL & GAS ONSHORE LP May 7, 2012 **BONANZA 1023-5N4AS** WELL NAME 8,389' TVD 8,628' MD **FIELD** Natural Buttes COUNTY Uintah STATE Utah FINISHED ELEVATION 5295.4 SURFACE LOCATION SWSW 220 FSL 1060 FWL Sec 5 T 10S Latitude: 39.971304 -109.356338 **NAD 83** Longitude: BTM HOLE LOCATION SESW 630 FSL 2453 FWL Sec 5 T 10S R 23E Latitude: 39.972434 Longitude: -109.351368 NAD 83 OBJECTIVE ZONE(S) Wasatch/Mesaverde



BONANZA 1023-5N4AS Drilling Program
6 of 7



KERR-McGEE OIL & GAS ONSHORE LP

DRILLING PROGRAM

CASING PROGRAM									DESIGN	FACTORS	
			LTC	DQX							
	SIZE	INTE	ERVAL		WT.	GR.	CPLG.	BURST	COLL	APSE	TENSION
CONDUCTOR	14"	0	-40'								
								3,390	1,880	348,000	N/A
SURFACE	8-5/8"	0	to	2,270	28.00	IJ-55	LTC	2.38	1.77	6.25	N/A
								7,780	6,350	223,000	267,035
PRODUCTION	4-1/2"	0	to	5,000	11.60	I-80	DQX	1.11	1.16		3.30
								7,780	6,350	223,000	267,035
	4-1/2"	5,000	to	8,628'	11.60	I-80	LTC	1.11	1.16	6.55	

Surface Casing:

(Burst Assumptions: TD = 12.5 ppg) 0.73 psi/ft = frac gradient @ surface shoe

Fracture at surface shoe with 0.1 psi/ft gas gradient above

(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

Production casing:

(Burst Assumptions: Pressure test with 8.4ppg @ 7000 psi) 0.64 psi/ft = bottomhole gradient

(Collapse Assumption: Fully Evacuated Casing, Max MW) (Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

CEMENT PROGRAM

	FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGH	T	YIELD
SURFACE LEAD	500'	Premium cmt + 2% CaCl	180	60%	15.80		1.15
Option 1		+ 0.25 pps flocele					
TOP OUT CMT (6 jobs)	1,200'	20 gals sodium silicate + Premium cmt	270	0%	15.80		1.15
		+ 2% CaCl + 0.25 pps flocele					
SURFACE		NOTE: If well will circulate water to	surface,	option 2 wi	II be utilized		
Option 2 LEAD	1,770'	65/35 Poz + 6% Gel + 10 pps gilsonite	160	35%	11.00		3.82
		+ 0.25 pps Flocele + 3% salt BWOW					
TAIL	500'	Premium cmt + 2% CaCl	150	35%	15.80		1.15
		+ 0.25 pps flocele					
TOP OUT CMT	as required	Premium cmt + 2% CaCl	as req.		15.80		1.15
PRODUCTION LEAD	3,678'	Premium Lite II +0.25 pps	290	35%	12.00		3.38
		celloflake + 5 pps gilsonite + 10% gel					
		+ 0.5% extender					
TAIL	4,950'	50/50 Poz/G + 10% salt + 2% gel	1,170	35%	14.30		1.31
		+ 0.1% R-3					

^{*}Substitute caliper hole volume plus 0% excess for LEAD if accurate caliper is obtained

FLOAT EQUIPMENT & CENTRALIZERS

SURFACE

Guide shoe, 1 jt, insert float. Centralize first 3 joints with bow spring centralizers. Thread lock guide shoe

PRODUCTION

Float shoe, 1 jt, float collar. 15 centralizers for a Mesaverde and 20 for a Blackhawk well.

1 centralizer on the first 3 joints and one every third joint thereafter.

ADDITIONAL INFORMATION

Test casing head to 750 psi after installing. Test surface casing to 1,500 psi prior to drilling out.

BOPE: 11* 5M with one annular and 2 rams. The BOPE will be installed before the production hole is drilled and tested to 5,000 psi (annular to 2,500 psi) prior to drilling out the surface casing shoe. Record on chart recorder and tour sheet. Function test rams on each trip. Maintain safety valve and inside BOP on rig floor at all times. Most rigs have top drives; however, if used, the Kelly is to be equipped with upper and lower kelly valves.

	211				4 0001		to the month.
urveys	WIII	рe	taken	at	1,000	minimum	intervais.

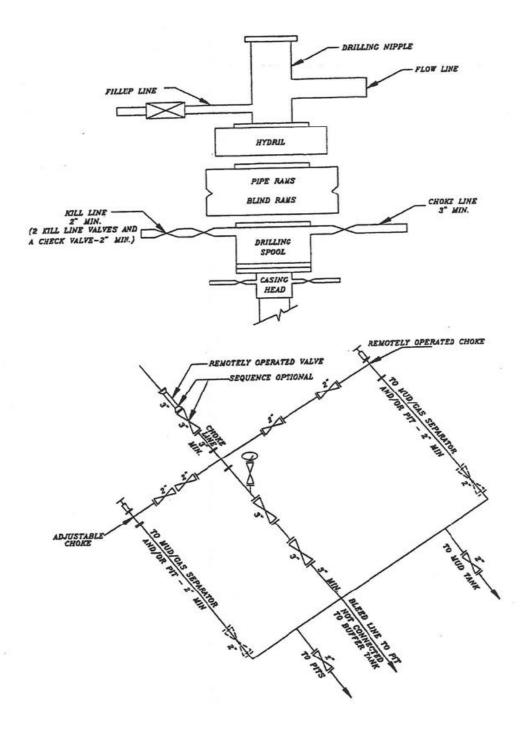
Most rigs have PVT System for mud monitoring. If no PVT is available, visual monitoring will be utilized.

DRILLING ENGINEER:		DATE:
	Nick Spence / Danny Showers / Chad Loesel	
DRILLING SUPERINTENDENT:		DATE:

Kenny Gathings / Lovel Young

^{*}Substitute caliper hole volume plus 10% excess for TAIL if accurate caliper is obtained

EXHIBIT A BONANZA 1023-5N4AS



SCHEMATIC DIAGRAM OF 5,000 PSI BOP STACK

Requested Drilling Options:

Kerr-McGee will use either a closed loop drilling system that will require one pit and one cuttings storage area to be constructed on the drilling pad or a traditional drilling operation with one pit used for drilling and completion operations. The cuttings storage area will be used to contain only the de-watered drill cuttings and will be lined and bermed to prevent any liquid runoff. The drill cuttings will be buried in the completion pit once completion operations are completed according to traditional pit closure standards. The pit will be constructed to allow for completion operations. The completion operations pit will be lined with a synthetic material 20 mil or thicker and will be used for the completing of the wells on the pad or used as part of our Aandarko Completions Transportation System (ACTS). Using the closed loop drilling system will allow Kerr-McGee to decrease the amount of disturbance/footprint on location compared to a single large drilling/completions pit.

If Kerr-McGee does not use a closed loop drilling system, it will construct a traditional drilling/completions pit to contain drill cuttings and for use in completion operations. The pit will be lined with a synthetic material 20 mil or thicker. The drill cuttings will be buried in the pit using traditional pit closure standards.

	STATE OF UTAH		FORM 9			
ı	DEPARTMENT OF NATURAL RESOURC DIVISION OF OIL, GAS, AND MIN	-	5.LEASE DESIGNATION AND SERIAL NUMBER: UTU73450			
SUNDR	Y NOTICES AND REPORTS	ON WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:			
	posals to drill new wells, significantly or reenter plugged wells, or to drill horizon n for such proposals.		7.UNIT or CA AGREEMENT NAME: PONDEROSA			
1. TYPE OF WELL Gas Well		8. WELL NAME and NUMBER: BONANZA 1023-5N4AS				
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	ISHORE, L.P.		9. API NUMBER: 43047520800000			
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th	n Street, Suite 600, Denver, CO, 80217	PHONE NUMBER: 3779 720 929-6	9. FIELD and POOL or WILDCAT: 5M&TUTRAL BUTTES			
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0220 FSL 1060 FWL			COUNTY: UINTAH			
QTR/QTR, SECTION, TOWNSH Qtr/Qtr: SWSW Section:	lian: S	STATE: UTAH				
11. CHECI	K APPROPRIATE BOXES TO INDICAT	E NATURE OF NOTICE, REPOR	RT, OR OTHER DATA			
TYPE OF SUBMISSION		TYPE OF ACTION				
	ACIDIZE	ALTER CASING	CASING REPAIR			
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME			
	CHANGE WELL STATUS	CONVERT WELL TYPE				
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	FRACTURE TREAT	NEW CONSTRUCTION			
	OPERATOR CHANGE	PLUG AND ABANDON	PLUG BACK			
SPUD REPORT	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION			
Date of Spud:	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON			
	TUBING REPAIR	VENT OR FLARE	WATER DISPOSAL			
DRILLING REPORT Report Date:	WATER SHUTOFF	SI TA STATUS EXTENSION	APD EXTENSION			
5/27/2012	WILDCAT WELL DETERMINATION	OTHER	OTHER:			
42 DESCRIPE PROPOSED OR	COMPLETED OPERATIONS. Clearly show a	U martinant dataile including dates	<u> </u>			
MIRU ROTARY R 5/26/2012. RAN 4-1 PRODUCTION CAS 20:00 HRS. DETAILS	IG. FINISHED DRILLING FRO /2" 11.6# I-80 PRODUCTION SING. RELEASED ENSIGN 13 OF CEMENT JOB WILL BE INC EPORT. WELL IS WAITING ON ACTIVITIES.	M 2460' TO 8630' ON I CASING. CEMENTED 8 RIG ON 5/27/2012 @ CLUDED WITH THE WELL	Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY May 29, 2012			
NAME (PLEASE PRINT) Cara Mahler	PHONE NUMB 720 929-6029	ER TITLE Regulatory Analyst I				
SIGNATURE N/A		DATE 5/29/2012				

State of Utah - Notification Form

Operator <u>Anadarko Petroleum</u> Rig Name/# <u>Ensign 138</u> Submitted By <u>BRAD PEDERSEN</u> Phone Number <u>435- 828-</u>
0982
Well Name/Number bonanza 1023-5n4ns
Qur/Qur <u>sw/sw</u> Section <u>5</u> Township <u>Tus</u> Range 23E
Lease Serial Number <u>utu-73450</u> API Number43-047-520800
7.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1
<u>Casing</u> – Time casing run starts, not cementing times.
Production Casing Other
Date/Time <u>5/27/2012</u> <u>03:00</u> AM \boxtimes PM \square
BOPE RECEIVED
Initial BOPE test at surface casing point MAY 3 0 2012
Other DIV. OF OIL, GAS & MINING
Date/Time AM PM
Rig Move Location To: BONANZA 1023-5N3CS
Date/Time <u>5/27/2012</u> <u>17:00</u> AM PM
Remarks TIME IS ESTIMATED

STATE OF UTAH	
DEPARTMENT OF NATURAL RESOURCE	s
DIVISION OF OIL, GAS AND MININ	iG

			ENTITY ACTION	FORM	·		** ***********************************			
)naratar:	KERR	McGEE OIL & GAS ON	ISHORE LP					2005		
Operator:		ox 173779	TOTIONE EI	Оре	erator Ac	count Nu	ımber: _	N 2995		
\ddress:	-			-						
	city DE			-						
	state C	0	_{zip} 80217	_	P	hone Nu	mber:	(720) 929-6029		
W				_						
Weil 1 API Nu	mber	NA/AJI	Name	1 66		T =	<u> </u>			
See A		1		QQ	Sec	Twp	Rng	County		
		See Atchm	r		<u> </u>					
Action	Code	Current Entity Number	New Entity Number	S	pud Da	te		tity Assignment Effective Date		
		99999	12519				<u> </u>	1112012		
Commen	ts: Diag-	o ooo otteebee all all all		<u>.</u>			<u> </u>	1115015		
i - ve no		e see attachment with	list of Wells in the Pon	derosa Uı	nit.		513	30 12012		
WSM	1/177							30 10010		
Weii 2		·								
API Nu	mber	Well	Name	QQ	Sec	Twp	Rng	County		
Action	Code	Current Entity	New Entity	s	pud Dat	l	Fnt	tity Assignment		
		Number	Number]	,			Effective Date		

Comment	ts:									
				·						
Well 3										
API Nu	mber	Well	Name	QQ	Sec	Twp	Rng	County		
								×		
Action	Code	Current Entity	New Entity	-	pud Dat	·^	F"4	L		
		Number	Number	"	puu Dai	. C		ity Assignment Effective Date		
				 						
Comment										
	-									
TION CODE										
A - Estat	olish new e	ntity for new well (single v	well only)	Ca	ra Mahle	r				
B - Add :	new well to	existing entity (group or a	unit well)	Nam	e (Please	Print)				
C - Re-a:	ssign well t ssign well t	rom one existing entity to	another existing entity							
E - Other	r (Explain i	rom one existing entity to n 'comments' section)	RECEIVED		ature	DV ANA	I VOT	E/04/0040		
	, ,									
			MAV a 4 2042	11110				Date		

(5/2000)

MAY 2 1 2012

well name	sec	twp	rng	api	entity	le	ease	well	stat	qtr_qtr	bhl	surf zone	a_stat	I_num	op_no
SOUTHMAN CANYON 31-3	31	090S	230E	4304734726	13717		1	GW	Р	SENW		1 WSMVD	P	U-33433	N2995
SOUTHMAN CANYON 31-4	31	090S	230E	4304734727	13742			GW	S	SESW		1 WSMVD	S	UTU-33433	N2995
SOUTHMAN CYN 31-2X (RIG SKID)	31	0908	230E	4304734898	13755		1	GW	Р	NWNW		1 WSMVD	Р	U-33433	N2995
SOUTHMAN CYN 923-31J	31	090S	230E	4304735149				GW	Р	NWSE		1 MVRD	Р	U-33433	N2995
SOUTHMAN CYN 923-31B	31	0908	230E	4304735150				GW	Р	NWNE		1 MVRD	Р	U-33433	N2995
SOUTHMAN CYN 923-31P	31	0908	230E	4304735288	14037			GW	Р	SESE		1 WSMVD	Р	UTU-33433	N2995
SOUTHMAN CYN 923-31H	31	090S	230E	4304735336	14157			GW	Р	SENE		1 WSMVD	Р	U-33433	N2995
SOUTHMAN CYN 923-310	31	090S	230E	4304737205			1	GW	Р	SWSE		1 MVRD	Р	UTU-33433	N2995
SOUTHMAN CYN 923-31K	31	090S	230E	4304737206	16503		1	GW	Р	NESW		1 WSMVD	Р	UTU-33433	N2995
SOUTHMAN CYN 923-31G	31	090S	230E	4304737208	16313		1	GW	Р	SWNE		1 WSMVD	Р	UTU-33433	N2995
SOUTHMAN CYN 923-31E	31	0908	230E	4304737209	16521		1	GW	Р	SWNW		1 WSMVD	Р	UTU-33433	N2995
SOUTHMAN CYN 923-31A	31	090S	230E	4304737210	16472		1	GW	Р	NENE		1 WSMVD	Р	UTU-33433	N2995
SOUTHMAN CYN 923-31C	31	090S	230E	4304737227	16522		1	GW	Р	NENW		1 WSMVD	Р	UTU-33433	N2995
BONANZA 1023-1G	01	100S	230E	4304735512	14458		1	GW	Р	SWNE		1 WSMVD	Р	U-40736	N2995
BONANZA 1023-1A	01	100S	230E	4304735717	14526		1	GW	Р	NENE		1 WSMVD	Р	U-40736	N2995
BONANZA 1023-1E	01	100S	230E	4304735745	14524		1	GW	Р	SWNW		1 WSMVD	Р	U-40736	N2995
BONANZA 1023-1C	01	100S	230E	4304735754	14684		1	GW	Р	NENW		1 MVRD	Р	U-40736	N2995
BONANZA 1023-1K	01	100S	230E	4304735755	15403		1	GW	Р	NESW		1 MVRD	Р	U-38423	N2995
BONANZA 1023-1F	01	100S	230E	4304737379	16872		1	GW	Р	SENW		1 MVRD	Р	UTU-40736	N2995
BONANZA 1023-1B	01	100S	230E	4304737380	16733		1	GW	Р	NWNE		1 MVRD	Р	UTU-40736	N2995
BONANZA 1023-1D	01	100S	230E	4304737381	16873		1	GW	Р	NWNW		1 MVRD	Р	UTU-40736	N2995
BONANZA 1023-1H	01	100S	230E	4304737430	16901		1	GW	Р	SENE		1 MVRD	Р	UTU-40736	N2995
BONANZA 1023-1L	01	100S	230E	4304738300	16735		1	GW	Р	NWSW		1 MVRD	Р	UTU-38423	N2995
BONANZA 1023-1J	01	100S	230E	4304738302	16871		1	GW	Р	NWSE		1 MVRD	Р	UTU-40736	N2995
BONANZA 1023-1I	01	100S	230E	4304738810	16750		1	GW	Р	NESE		1 MVRD	Р	UTU-40736	N2995
BONANZA 1023-2E	02	100S	230E	4304735345	14085		3	GW	Р	SWNW		3 WSMVD	Р	ML-47062	N2995
BONANZA 1023-2C	02	100S	230E	4304735346	14084		3	GW	Р	NENW		3 WSMVD	Р	ML-47062	N2995
BONANZA 1023-2A	02	100S	230E	4304735347	14068		3	GW	Р	NENE		3 MVRD	Р	ML-47062	N2995
BONANZA 1023-2G	02	100S	230E	4304735661	14291		3 (GW	Р	SWNE		3 WSMVD	Р	ML-47062	N2995
BONANZA 1023-20	02	100S	230E	4304735662	14289		3 (GW	Р	SWSE		3 WSMVD	Р	ML-47062	N2995
BONANZA 1023-2I	02	100S	230E	4304735663	14290		3 (GW	S	NESE		3 WSMVD	S	ML-47062	N2995
BONANZA 1023-2MX	02	100S	230E	4304736092	14730		3 (GW	Р	swsw		3 WSMVD	Р	ML-47062	N2995
BONANZA 1023-2H	02	100S	230E	4304737093	16004		3 (GW	Р	SENE		3 WSMVD	Р	ML-47062	N2995
BONANZA 1023-2D	02	100S	230E	4304737094	15460		3 (GW	Р	NWNW		3 WSMVD	Р	ML-47062	N2995
BONANZA 1023-2B	02	100S	230E	4304737095	15783		3 (GW	Р	NWNE		3 MVRD	Р	ML-47062	N2995
BONANZA 1023-2P	02	100S	230E	4304737223	15970		3 (GW	Р	SESE		3 WSMVD	Р	ML-47062	N2995
BONANZA 1023-2N	02	100S	230E	4304737224	15887		3 (GW	Р	SESW		3 MVRD	Р	ML-47062	N2995
BONANZA 1023-2L	02		230E	4304737225	15833			ЭW	Р	NWSW		3 WSMVD		ML-47062	N2995
BONANZA 1023-2F	02		230E	4304737226	15386				Р	SENW		3 WSMVD	+	ML-47062	N2995
BONANZA 1023-2D-4	02		230E	4304738761	16033				Р	NWNW	-	3 WSMVD		ML-47062	N2995
BONANZA 1023-20-1	02	100S	230E	4304738762	16013				Р	SWSE		3 WSMVD	+	ML-47062	N2995
BONANZA 1023-2H3CS	02		230E	4304750344	17426				Р	1	D	3 MVRD		ML 47062	N2995
BONANZA 1023-2G3BS	02	100S	230E	4304750345	17428				Р		D	3 MVRD	·i	ML 47062	N2995
BONANZA 1023-2G2CS	02		230E	4304750346	17429				Р		D	3 MVRD		ML 47062	N2995
BONANZA 1023-2G1BS	02		230E	4304750347	17427				Р	 	D	3 MVRD		ML 47062	N2995

								_					
BONANZA 1023-2M1S	02	100S	230E	4304750379	17443	3 GW	Р	SENW	D	3 MVRD	P	ML 47062	N2995
BONANZA 1023-2L2S	02	100S	230E	4304750380	17444	3 GW	Р	SENW	D	3 MVRD	Р	ML 47062	N2995
BONANZA 1023-2K4S	02	100S	230E	4304750381	17446	3 GW	Р	SENW	D	3 MVRD	Р	ML 47062	N2995
BONANZA 1023-2K1S	02	100S	230E	4304750382	17445	3 GW	Р	SENW	D	3 WSMVD	Р	ML 47062	N2995
BONANZA 4-6 😽	04	100S	230E	4304734751	13841	1 GW	Р	NESW		1 MNCS	Р	UTU-33433	N2995
BONANZA 1023-4A	04	100S	230E	4304735360	14261	1 GW	Р	NENE		1 WSMVD	Р	U-33433	N2995
BONANZA 1023-4E	04	100S	230E	4304735392	14155	1 GW	P	SWNW		1 WSMVD	Р	U-33433	N2995
BONANZA 1023-4C	04	100S	230E	4304735437	14252	1 GW	Р	NENW		1 WSMVD	Р	U-33433	N2995
BONANZA 1023-4M	04	100S	230E	4304735629	14930	1 GW	Р	swsw		1 WSMVD	Р	U-33433	N2995
BONANZA 1023-40	04	100S	230E	4304735688	15111	1 GW	Р	SWSE		1 WSMVD	Р	UTU-33433	N2995
BONANZA 1023-4I	04	100S	230E	4304735689	14446	1 GW	Р	NESE		1 MVRD	Р	UTU-33433	N2995
BONANZA 1023-4G	04	100S	230E	4304735746	14445	1 GW	Р	SWNE		1 WSMVD	Р	UTU-33433	N2995
BONANZA 1023-4D	04	100S	230E	4304737315	16352	1 GW	Р	NWNW		1 WSMVD	Р	UTU-33433	N2995
BONANZA 1023-4H	04	100S	230E	4304737317	16318	1 GW	Р	SENE		1 WSMVD	Р	UTU-33433	N2995
BONANZA 1023-4B	04	100\$	230E	4304737328	16351	1 GW	Р	NWNE		1 MVRD	Р	UTU-33433	N2995
BONANZA 1023-4L	04	100S	230E	4304738211	16393	1 GW	Р	NWSW		1 MVRD	Р	UTU-33433	N2995
BONANZA 1023-4P	04	100S	230E	4304738212	16442	1 GW	Р	SESE		1 WSMVD	Р	UTU-33433	N2995
BONANZA 1023-4N	04	100S	230E	4304738303	16395	1 GW	Р	SESW		1 WSMVD	Р	UTU-33433	N2995
BONANZA 1023-4FX (RIGSKID)	04	100S	230E	4304739918	16356	1 GW	Р	SENW		1 WSMVD	Р	UTU-33433	N2995
BONANZA 1023-50	05	100S	230E	4304735438	14297	1 GW	Р	SWSE		1 WSMVD	Р	U-33433	N2995
BONANZA 1023-5AX (RIGSKID)	05	100S	230E	4304735809	14243	1 GW	Р	NENE		1 WSMVD	Р	U-33433	N2995
BONANZA 1023-5C	05	100S	230E	4304736176	14729	1 GW	Р	NENW		1 WSMVD	Р	UTU-33433	N2995
BONANZA 1023-5G	05	100S	230E	4304736177	14700	1 GW	Р	SWNE		1 WSMVD	Р	UTU-33433	N2995
BONANZA 1023-5M	05	100S	230E	4304736178	14699	1 GW	Р	SWSW		1 WSMVD	Р	UTU-73450	N2995
BONANZA 1023-5K	05	100S	230E	4304736741	15922	1 GW	Р	NESW		1 WSMVD	Р	UTU-33433	N2995
BONANZA 1023-5B	05	100S	230E	4304737318	16904	1 GW	Р	NWNE		1 WSMVD	Р	UTU-33433	N2995
BONANZA 1023-5E	05	100S	230E	4304737319	16824	1 GW	Р	SWNW		1 WSMVD	Р	UTU-33433	N2995
BONANZA 1023-5H	05	100S	230E	4304737320	16793	1 GW	Р	SENE		1 WSMVD	Р	UTU-33433	N2995
BONANZA 1023-5N	05	100S	230E	4304737321	16732	1 GW	Р	SESW		1 WSMVD	Р	UTU-73450	N2995
BONANZA 1023-5L	05	100S	230E	4304737322	16825	1 GW	Р	NWSW		1 MVRD	Р	UTU-33433	N2995
BONANZA 1023-5J	05	100S	230E	4304737428	17055	1 GW	Р	NWSE		1 WSMVD	Р	UTU-33433	N2995
BONANZA 1023-5P	05	100S	230E	4304738213	16795	1 GW	Р	SESE		1 MVRD	Р	UTU-33433	N2995
BONANZA 1023-5N-1	05	100S	230E	4304738911	17060	1 GW	Р	SESW		1 WSMVD	Р	UTU-73450	N2995
BONANZA 1023-5PS	05	100S	230E	4304750169	17323	1 GW	Р	NESE	D	1 WSMVD	Р	UTU-33433	N2995
BONANZA 1023-5G2AS	05	100S	230E	4304750486	17459	1 GW	Р	SWNE	D	1 MVRD	Р	UTU 33433	N2995
BONANZA 1023-5G2CS	05	100S	230E	4304750487	17462	1 GW	Р	SWNE	D	1 MVRD	Р	UTU 33433	N2995
BONANZA 1023-5G3BS	05	100S	230E	4304750488	17461	1 GW	Р	SWNE	D	1 MVRD	P	UTU 33433	N2995
BONANZA 1023-5G3CS	05	100S	230E	4304750489	17460	1 GW	Р	SWNE	D	1 MVRD	Р	UTU 33433	N2995
BONANZA 1023-5N4AS	05	100S	230E	4304752080	18484	1 GW	DRL	SWSW	D	1 WSMVD	DRL	UTU73450	N2995
BONANZA 1023-8C2DS	05	100S	230E	4304752081	18507	1 GW	DRL	SWSW	D	1 WSMVD	DRL	UTU37355	N2995
BONANZA 6-2	06	100S	230E	4304734843	13796	1 GW	TA	NESW		1 WSMVD	TA	UTU-38419	N2995
BONANZA 1023-6C	06	100S	230E	4304735153	13951	1 GW	Р	NENW		1 MVRD	Р	U-38419	N2995
BONANZA 1023-6E	06	100S	230E	4304735358	14170	1 GW	Р	SWNW		1 MVRD	Р	U-38419	N2995
BONANZA 1023-6M	06	100S	230E	4304735359	14233	1 GW	Р	SWSW		1 WSMVD	Р	U-38419	N2995
BONANZA 1023-6G	06	100S	230E	4304735439	14221	1 GW	Р	SWNE		1 WSMVD	Р	UTU-38419	N2995
BONANZA 1023-60	06	100S	230E	4304735630	14425	1 GW	TA	SWSE		1 WSMVD	TA	U-38419	N2995

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DOMANZA 1002 GA	06	1000	220⊏	4204726067	14775	4	C\\\	Р	NENE	1	1 WSMVD	Р	11 22422	N2995
BONANZA 1023-6A	06	1008	230E	4304736067	14775		GW	P	NENE SESW		1 WSMVD	P	U-33433 UTU-38419	N2995 N2995
BONANZA 1023-6N	06	1008	230E	4304737211 4304737212	15672 15673	- 	GW	P	NWSW		1 WSMVD	P	UTU-38419	N2995 N2995
BONANZA 1023-6L	06	1008	230E		15620		GW	P	NWSE	1	1 WSMVD	P	UTU-38419	N2995 N2995
BONANZA 1023-6J	06	1008	230E	4304737213			<u> </u>			-				
BONANZA 1023-6F	06	1008	230E	4304737214	15576		GW	TA	SENW	1	1 WSMVD	TA	UTU-38419	N2995
BONANZA 1023-6P	06	1008	230E	4304737323	16794		GW	P	SESE	-	1 WSMVD	Р	UTU-38419	N2995
BONANZA 1023-6H	06	100\$	230E	4304737324	16798		GW	S	SENE	-	1 WSMVD	S	UTU-33433	N2995
BONANZA 1023-6D	06	1008	230E	4304737429	17020		GW	P	NWNW	-	1 WSMVD	P	UTU-38419	N2995
BONANZA 1023-6B	06	100S	230E	4304740398	18291		GW	P	NWNE	ļ	1 WSMVD	Р	UTU-33433	N2995
BONANZA 1023-6M1BS	06	100S	230E	4304750452	17578		GW	Р	NWSW	D	1 WSMVD	P	UTU 38419	N2995
BONANZA 1023-6N1AS	06	100\$	230E	4304750453	17581	ii	GW	Р	NWSW	D	1 WSMVD	Р	UTU 38419	N2995
BONANZA 1023-6N1CS	06	100S	230E	4304750454	17580		GW	Р	NWSW	D	1 WSMVD	Р	UTU 38419	N2995
BONANZA 1023-6N4BS	06	100S	230E	4304750455	17579		GW	Р	NWSW	D	1 WSMVD	Р	UTU 38419	N2995
BONANZA 1023-612S	06	100S	230E	4304750457	17790		GW	Р	NESE	D	1 WSMVD	Р	UTU 38419	N2995
BONANZA 1023-614S	06	100S	230E	4304750458	17792		GW	Р	NESE	D	1 WSMVD	Р	UTU 38419	N2995
BONANZA 1023-6J3S	06	100S	230E	4304750459	17791	1	GW	Р	NESE	D	1 WSMVD	Р	UTU 38419	N2995
BONANZA 1023-6P1S	06	100S	230E	4304750460	17793	1	GW	Р	NESE	D	1 WSMVD	Р	UTU 38419	N2995
BONANZA 1023-6A2CS	06	100S	230E	4304751430	18292	1	GW	Р	NWNE	D ·	1 WSMVD	Р	UTU33433	N2995
BONANZA 1023-6B4BS	06	100S	230E	4304751431	18293	1	GW	Р	NWNE	D	1 WSMVD	Р	UTU33433	N2995
BONANZA 1023-6B4CS	06	100S	230E	4304751432	18294	1	GW	Р	NWNE	D	1 WSMVD	Р	UTU33433	N2995
BONANZA 1023-6C4BS	06	100S	230E	4304751449	18318	1	GW	Р	NENW	D	1 WSMVD	Р	UTU38419	N2995
BONANZA 1023-6D1DS	06	1008	230E	4304751451	18316		GW	Р	NENW	D	1 WSMVD	Р	UTU38419	N2995
FLAT MESA FEDERAL 2-7	07	1008	230E	4304730545	18244		GW	S	NENW		1 WSMVD	S	U-38420	N2995
BONANZA 1023-7B	07	100S	230E	4304735172	13943		GW	Р	NWNE		1 MVRD	Р	U-38420	N2995
BONANZA 1023-7L	07	100S	230E	4304735289	14054		GW	Р	NWSW		1 WSMVD	Р	U-38420	N2995
BONANZA 1023-7D	07	100S	230E	4304735393	14171		GW	Р	NWNW		1 WSMVD	P	U-38420	N2995
BONANZA 1023-7P	07	100S	230E	4304735510	14296		GW	Р	SESE		1 WSMVD	Р	U-38420	N2995
BONANZA 1023-7H	07	100S	230E	4304736742	15921		GW	P	SENE	1	1 WSMVD	P	UTU-38420	N2995
BONANZA 1023-7NX (RIGSKID)	07	100S	230E	4304736932	15923		GW	P	SESW		1 WSMVD	P		N2995
BONANZA 1023-7M	07	100S	230E	4304737215	16715		GW	P	SWSW		1 WSMVD	P		N2995
BONANZA 1023-7K	07	1005	230E	4304737216	16714		GW	P	NESW		1 WSMVD	P	UTU-38420	N2995
BONANZA 1023-7E	07	1005	230E	4304737217	16870		GW	P	SWNW		1 WSMVD	P	UTU-38420	N2995
BONANZA 1023-7G	07	1005	230E	4304737326	16765		GW	P	SWNE		1 WSMVD	P	UTU-38420	N2995
BONANZA 1023-7A	07	1005	230E	4304737327	16796		GW	P	NENE		1 WSMVD	P	UTU-38420	N2995
BONANZA 1023-70	07	1005	230E	4304738304	16713		GW	P	SWSE		1 MVRD	P	UTU-38420	N2995
BONANZA 1023-70 BONANZA 1023-7B-3	07	1003	230E	4304738912	17016		GW	P	NWNE		1 WSMVD	P	UTU-38420	N2995
		100S	230E				GW	Р	NWSE	-	1 WSMVD	P		N2995
BONANZA 1023-07JT	07			4304739390	16869 17494		GW	P		D		P		N2995
BONANZA 1023-7J2AS	07	100S	230E	4304750474	-					+ +				
BONANZA 1023-7J2DS	07	100\$	230E	4304750475	17495	-	GW	P		D	1 WSMVD	Р		N2995
BONANZA 1023-7L3DS	07	1008	230E	4304750476	17939		GW	Р		D	1 WSMVD	P		N2995
BONANZA 1023-7M2AS	07	1008	230E	4304750477	17942		GW	P	· i	D	1 WSMVD	Р		N2995
BONANZA 1023-7N2AS	07	100S	230E	4304750478	17940		GW	Р		D	1 WSMVD	P		N2995
BONANZA 1023-7N2DS	07	100S	230E	4304750479	17941			P	NWSW	D	1 WSMVD	P		N2995
BONANZA 1023-704S	07	100S	230E	4304750480	17918		GW	P	SESE	D	1 WSMVD	Р		N2995
BONANZA 1023-7P2S	07	100S	230E	4304750482	17919			Р	SESE	D	1 WSMVD	Р		N2995
BONANZA 8-2	08	100S	230E	4304734087	13851	1 (GW	P	SESE		1 MVRD	Р	U-37355	N2995

BONANZA 8-3	08	100S	230E	4304734770	13843	1 GW	Р	NWNW		1 MVRD	Р	U-37355	N2995
BONANZA 1023-8A	08	100S	230E	4304735718	14932	1 GW	Р	NENE		1 WSMVD	Р	UTU-37355	N2995
BONANZA 1023-8L	08	100S	230E	4304735719	14876	1 GW	Р	NWSW		1 WSMVD	Р	UTU-37355	N2995
BONANZA 1023-8N	08	100S	230E	4304735720	15104	1 GW	Р	SESW	Ì	1 WSMVD	Р	UTU-37355	N2995
BONANZA 1023-8F	08	100S	230E	4304735989	14877	1 GW	S	SENW		1 WSMVD	s	UTU-37355	N2995
BONANZA 1023-8I	08	100S	230E	4304738215	16358	1 GW	Р	NESE		1 WSMVD	Р	UTU-37355	N2995
BONANZA 1023-8K	08	100S	230E	4304738216	16354	1 GW	Р	NESW		1 WSMVD	Р		N2995
BONANZA 1023-8M	08	1008	230E	4304738217	16564	1 GW	Р	swsw	1	1 MVRD	Р		N2995
BONANZA 1023-8G	08	100S	230E	4304738218	16903	1 GW	Р	SWNE		1 WSMVD	Р	UTU-37355	N2995
BONANZA 1023-8E	08	100S	230E	4304738219	16397	1 GW	Р	SWNW		1 WSMVD	Р	UTU-37355	N2995
BONANZA 1023-8C	08	100S	230E	4304738220	16355	1 GW	Р	NENW		1 WSMVD	Р		N2995
BONANZA 1023-8B	08	100S	230E	4304738221	16292	1 GW	Р	NWNE	+	1 WSMVD	Р		N2995
BONANZA 1023-8H	08	100S	230E	4304738222	16353	1 GW	P	SENE	-	1 WSMVD	P	UTU-37355	N2995
BONANZA 1023-80	08	100S	230E	4304738305	16392	1 GW	Р	SWSE		1 WSMVD	Р	UTU-37355	N2995
BONANZA 1023-8B-4	08	100S	230E	4304738914	17019	1 GW	P	NWNE		1 WSMVD	Р		N2995
BONANZA 1023-8A1DS	08	100S	230E	4304750481	17518	1 GW	P	NENE	D	1 WSMVD	P		N2995
BONANZA 1023-8A4BS	08	100S	230E	4304750483	17519	1 GW	P	NENE	D	1 WSMVD	P		N2995
BONANZA 1023-8B1AS	08	100S	230E	4304750484	17520	1 GW	P	NENE	D	1 WSMVD	Р		N2995
BONANZA 1023-8B2AS	08	1008	230E	4304750485	17521	1 GW	P	NENE	D	1 WSMVD	Р	UTU 37355	N2995
BONANZA 1023-802S	08	1005	230E	4304750495	17511	1 GW	P	NWSE	D	1 WSMVD	P	UTU 37355	N2995
BONANZA 1023-8J1S	08	100S	230E	4304750496	17509	1 GW	P	NWSE	D	1 WSMVD	Р	UTU 37355	N2995
BONANZA 1023-803S	08	100S	230E	4304750497	17512	1 GW	P	NWSE	D	1 WSMVD	P	UTU 37355	N2995
BONANZA 1023-8J3	08	100S	230E	4304750498	17510	1 GW	Р	NWSE	-	1 WSMVD	P	UTU 37355	N2995
BONANZA 1023-8C4CS	08	100S	230E	4304750499	17544	1 GW	P	NENW	D	1 WSMVD	P	UTU 37355	N2995
BONANZA 1023-8D2DS	08	100S	230E	4304750500	17546	1 GW	P	NENW	D	1 WSMVD	P	UTU 37355	N2995
BONANZA 1023-8D3DS	08	100S	230E	4304750501	17545	1 GW	P	NENW	D	1 WSMVD	P	UTU 37355	N2995
BONANZA 1023-8F3DS	08	100\$	230E	4304750502	17543	1 GW	Р	NENW	D	1 WSMVD	Р	UTU 37355	N2995
BONANZA 1023-8A4CS	08	100S	230E	4304751131	18169	1 GW	Р	NWNE	D	1 WSMVD	P	UTU 37355	N2995
BONANZA 1023-8B3BS	08	100S	230E	4304751132	18167	1 GW	P	NWNE	D	1 WSMVD	P	UTU 37355	N2995
BONANZA 1023-8C1AS	08	100S	230E	4304751133	18166	1 GW	Р	NWNE	D	1 WSMVD	Р	UTU 37355	N2995
BONANZA 1023-8G3AS	08	1005	230E	4304751134	18168	1 GW	P	NWNE	D	1 WSMVD	Р	UTU 37355	N2995
BONANZA 1023-8E2AS	08	100S	230E	4304751135	18227	1 GW	Р	SENW	D	1 WSMVD	Р	UTU 37355	N2995
BONANZA 1023-8F3BS	08	100S	230E	4304751136	18227	1 GW	P	SENW	D	1 WSMVD	Р	UTU 37355	N2995
BONANZA 1023-8F4AS	08	100S	230E	4304751137	18224	1 GW	Р		D	1 WSMVD	Р	UTU 37355	N2995
BONANZA 1023-8F4DS	08	100S	230E	4304751138	18225	1 GW	Р	SENW	D	1 WSMVD	Р		N2995
BONANZA 1023-8J2CS	08	100S	230E	4304751139	18226	1 GW	Р	SENW	D	1 WSMVD	Р		N2995
BONANZA 1023-8G4DS	08	1005	230E	4304751140	18144	1 GW	P	NESE	D	1 WSMVD	P		N2995
BONANZA 1023-8H2DS	08		230E	4304751141	18142		P	NESE	D	1 WSMVD	1 -	UTU 37355	
BONANZA 1023-8H3DS	08		230E	4304751142	18143	1 GW	P	NESE	D	1 WSMVD	Р		N2995
BONANZA 1023-8H4DS	08	100S	230E	4304751143	18141	1 GW	P	NESE	D	1 WSMVD	Р	NAME OF THE OWNER O	N2995
BONANZA 1023-814BS	08		230E	4304751144	18155	1 GW	P	NESE	D	1 WSMVD	P		N2995
BONANZA 1023-8J4BS	08	1005	230E	4304751145	18154	1 GW	P	NESE	D	1 WSMVD	P		N2995
BONANZA 1023-891AS	08	1005	230E	4304751146	18156	1 GW	P	NESE	D	1 WSMVD	P		N2995
BONANZA 1023-8P2BS	08	1	230E	4304751147	18153	1 GW	P	NESE	D	1 WSMVD	P		N2995
BONANZA 1023-8P4AS	08		230E	4304751148	18157	1 GW	P	NESE	D	1 WSMVD	P		N2995
BONANZA 1023-8E2DS	08		230E	4304751149	18201	1 GW	P		D	1 WSMVD	P	UTU 37355	
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BONANZA 1023-8E3DS	80	100S	230E	4304751150	18200	1 0		Р	NWSW	D	1 WSMVD	Р	UTU 37355	N2995
BONANZA 1023-8K1CS	80	100S	230E	4304751151	18199	1 0		Р	NWSW	D	1 WSMVD	Р	UTU 37355	N2995
BONANZA 1023-8K4CS	08	100S	230E	4304751152	18198	1 0		Р	NWSW	D	1 WSMVD	Р	UTU 37355	N2995
BONANZA 1023-8L3DS	80	100S	230E	4304751153	18197	1 0		Р	NWSW	D	1 WSMVD	Р	UTU 37355	N2995
BONANZA 1023-8M2AS	80	100S	230E	4304751154	18217	1 0		Р	swsw	D	1 WSMVD	Р	UTU 37355	N2995
BONANZA 1023-8M2DS	80	100S	230E	4304751155	18216	1 0		Р	SWSW	D	1 WSMVD	Р	UTU 37355	N2995
BONANZA 1023-8N2BS	80	100S	230E	4304751156	18218	1 0		Р	SWSW	D	1 WSMVD	Р	UTU 37355	N2995
BONANZA 1023-803CS	80	100S	230E	4304751157	18254	1 0		Р	SWSE	D	1 WSMVD	Р	UTU 37355	N2995
BONANZA 1023-8N3DS	80	100S	230E	4304751158	18215		W	Р	SWSW	D	1 WSMVD	Р	UTU 37355	N2995
BONANZA 1023-804AS	08	100S	230E	4304751159	18252	1 G		Р	SWSE	D	1 WSMVD	Р	UTU 37355	N2995
BONANZA 1023-8P2CS	08	100S	230E	4304751160	18251	1 G		Р	SWSE	D	1 WSMVD	Р	UTU 37355	N2995
BONANZA 1023-8P3CS	08	100S	230E	4304751161	18253	1 G		Р	SWSE	D	1 WSMVD	Р	UTU 37355	N2995
CANYON FEDERAL 2-9	09	100S	230E	4304731504	1468	1 G		Р	NENW	1	1 MVRD	Р	U-37355	N2995
SOUTHMAN CANYON 9-3-M	09	100S	230E	4304732540	11767	1 G		S	SWSW		1 MVRD	S	UTU-37355	N2995
SOUTHMAN CANYON 9-4-J	09	100S	230E	4304732541	11685	1 G		S	NWSE		1 MVRD	S	UTU-37355	N2995
BONANZA 9-6	09	100S	230E	4304734771	13852	1 G		P	NWNE		1 MVRD	Р	U-37355	N2995
BONANZA 9-5	09	100S	230E	4304734866	13892	1 G	W	Р	SESW		1 MVRD	Р	U-37355	N2995
BONANZA 1023-9E	09	100S	230E	4304735620	14931	1 G		Р	SWNW		1 WSMVD	Р	U-37355	N2995
BONANZA 1023-9I	09	100S	230E	4304738223	16766	1 G	W	Р	NESE		1 WSMVD	Р	UTU-37355	N2995
BONANZA 1023-9D	09	100S	230E	4304738306	16398	1 G	W	Р	NWNW		1 WSMVD	Р	UTU-37355	N2995
BONANZA 1023-9J	09	100S	230E	4304738811	16989	1 G		Р	NWSE		1 WSMVD	Р	UTU-37355	N2995
BONANZA 1023-9B3BS	09	100S	230E	4304750503	17965	1 G	W	Р	SENE	D	1 WSMVD	Р	UTU 37355	N2995
BONANZA 1023-9B3CS	09	100S	230E	4304750504	17968	1 G	W	Р	SENE	D	1 WSMVD	Р	UTU 37355	N2995
BONANZA 1023-9H2BS	09	100S	230E	4304750505	17966	1 G	W	Р	SENE	D	1 WSMVD	Р	UTU 37355	N2995
BONANZA 1023-9H2CS	09	100S	230E	4304750506	17967	1 G	W	Р	SENE	D	1 WSMVD	Р	UTU 37355	N2995
BONANZA 10-2	10	100S	230E	4304734704	13782	1 G	W	Р	NWNW		1 MVRD	Р	U-72028	N2995
BONANZA 1023-10L	10	100S	230E	4304735660	15164	1 G	W	Р	NWSW		1 WSMVD	Р	U-38261	N2995
BONANZA 1023-10E	10	100S	230E	4304738224	16501	1 G	W	Р	SWNW		1 MVRD	Р	UTU-72028	N2995
BONANZA 1023-10C	10	100S	230E	4304738228	16500	1 G	W	Р	NENW		1 MVRD	Р	UTU-72028	N2995
BONANZA 1023-10C-4	10	100S	230E	4304738915	17015	1 G	W	Р	NENW		1 MVRD	Р	UTU-72028	N2995
BONANZA 11-2 🛠	11	100S	230E	4304734773	13768	1 G	W	Р	SWNW		1 MVMCS	Р	UTU-38425	N2995
BONANZA 1023-11K	11	100S	230E	4304735631	15132	1 G	W	Р	NESW		1 WSMVD	Р	UTU-38425	N2995
BONANZA 1023-11B	11	100S	230E	4304738230	16764	1 G	W	Р	NWNE		1 MVRD	Р	UTU-38425	N2995
BONANZA 1023-11F	11	100S	230E	4304738232	16797	1 G	W	Р	SENW		1 MVRD	Р	UTU-38425	N2995
BONANZA 1023-11D	11	100S	230E	4304738233	16711	1 G	W	Р	NWNW		1 MVRD	Р	UTU-38425	N2995
BONANZA 1023-11G	11	100S	230E	4304738235	16826	1 G	W	Р	SWNE		1 MVRD	Р	UTU-38425	N2995
BONANZA 1023-11C	11	100S	230E	4304738309	16736	1 G	W	Р	NENW		1 MVRD	Р	UTU-38425	N2995
BONANZA 1023-11J	11	100S	230E	4304738310	16839	1 G	W	Р	NWSE		1 WSMVD	Р	UTU-38424	N2995
BONANZA 1023-11N	11	100S	230E	4304738311	16646	1 G	W	Р	SESW		1 MVRD	Р	UTU-38424	N2995
BONANZA 1023-11M	11	100S	230E	4304738312	16687	1 G		Р	SWSW		1 MVRD	Р	UTU-38424	N2995
BONANZA 1023-11L	11	100S	230E	4304738812	16987	1 G	W	Р	NWSW		1 WSMVD	Р	UTU-38424	N2995
NSO FEDERAL 1-12	12	100S	230E	4304730560	1480	1 G		Р	NENW		1 MVRD	Р		N2995
WHITE RIVER 1-14	14	100S	230E	4304730481	1500	1 G		S	NENW		1 MVRD	S	U-38427	N2995
BONANZA 1023-14D	14	100S	230E	4304737030	16799	1 G		P	NWNW		1 MVRD	Р		N2995
BONANZA 1023-14C	14		230E	4304738299	16623	1 G		P	NENW			P		N2995
BONANZA FEDERAL 3-15	15	1008	230E	4304731278	8406	1 G	_	Р	NENW			Р	U-38428	N2995
DOIVAIVEAT EDETIVIE 0-10		1.550						•	1	<u> </u>		<u> </u>	,	

* not moved into unit

BONANZA 1023-15H	15	100S	230E	4304738316	16688		1 GW	Р	SENE	T	1 MVRD	Р	UTU-38427	N2995
BONANZA 1023-15J	15	100S	230E	4304738817	16988	,	1 GW	Р	NWSE		1 MVRD	Р	UTU-38427	N2995
BONANZA 1023-15H4CS	15	100S	230E	4304750741	17492		1 GW	Р	NESE	D	1 MVRD	Р	UTU 38427	N2995
BONANZA 1023-15I2AS	15	100S	230E	4304750742	17493		1 GW	Р	NESE	D	1 WSMVD	Р	UTU 38427	N2995
BONANZA 1023-15I4BS	15	100S	230E	4304750743	17490		1 GW	Р	NESE	D	1 WSMVD	Р	UTU 38427	N2995
BONANZA 1023-15P1BS	15	100S	230E	4304750744	17491		I GW	Р	NESE	D	1 WSMVD	Р	UTU 38427	N2995
LOOKOUT POINT STATE 1-16	16	100S	230E	4304730544	1495	3	GW	Р	NESE		3 WSMVD	Р	ML-22186-A	N2995
BONANZA 1023-16J	16	100S	230E	4304737092	15987		GW	OPS	NWSE		3 WSMVD	OPS	ML-22186-A	N2995
BONANZA 1023-17B	17	100S	230E	4304735747	15165		I GW	Р	NWNE		1 WSMVD	Р	UTU-37355	N2995
BONANZA 1023-17C	17	100S	230E	4304738237	16585		I GW	Р	NENW		1 WSMVD	Р	UTU-37355	N2995
BONANZA 1023-17D3S	17	100S	230E	4304750511	17943		GW	Р	NENW	D	1 WSMVD	Р	UTU 37355	N2995
BONANZA 1023-17E2S	17	100S	230E	4304750512	17944		GW	Р	NENW	D	1 WSMVD	P	UTU 37355	N2995
BONANZA 1023-17E3AS	17	100S	230E	4304750513	17945	1	GW	Р	NENW	D	1 WSMVD	Р	UTU 37355	N2995
BONANZA 1023-17E3CS	17	100S	230E	4304750514	17946	1	GW	Р	NENW	D	1 WSMVD	Р	UTU 37355	N2995
BONANZA 1023-18G	18	100S	230E	4304735621	14410	•	GW	Р	SWNE		1 WSMVD	Р	U-38241	N2995
BONANZA 1023-18B	18	100S	230E	4304735721	14395		GW	Р	NWNE		1 WSMVD	Р	U-38421	N2995
BONANZA 1023-18DX (RIGSKID)	18	100S	230E	4304736218	14668	1	GW	Р	NWNW		1 WSMVD	Р	U-38241	N2995
BONANZA 1023-18A	18	1008	230E	4304738243	16625	1	GW	Р	NENE		1 WSMVD	Р	UTU-38421	N2995
BONANZA 1023-18F	18	100S	230E	4304738244	16624	1	GW	Р	SENW		1 WSMVD	Р	UTU-38421	N2995
BONANZA 1023-18E	18	100S	230E	4304738245	16645	1	GW	Р	SWNW		1 MVRD	Р	UTU-38421	N2995
BONANZA 1023-18C	18	100S	230E	4304738246	16734	1	GW	Р	NENW		1 MVRD	Р	UTU-38421	N2995
BONANZA 1023-18G-1	18	100S	230E	4304738916	17135	1	GW	Р	SWNE		1 WSMVD	Р	UTU-38421	N2995
BONANZA 1023-18D3AS	18	100S	230E	4304750448	17498	. 1	GW	Р	SWNW	D	1 WSMVD	Р	UTU 38421	N2995
BONANZA 1023-18D3DS	18	100S	230E	4304750449	17499	1	GW	Р	SWNW	D	1 WSMVD	Р	UTU 38421	N2995
BONANZA 1023-18E2DS	18	100S	230E	4304750450	17497	1	GW	Р	SWNW	D	1 WSMVD	P	UTU 38421	N2995
BONANZA 1023-18E3AS	18	100S	230E	4304750451	17496	1	GW	Р	SENW	D	1 WSMVD	Р	UTU 38421	N2995
BONANZA 1023-18L2S	18	100S	230E	4304750520	18111		GW	P	SWNW	D	1 WSMVD	Р	UTU 38421	N2995
BONANZA 1023-18L3S	18	100S	230E	4304750521	18110	1	GW	Р	SWNW	D	1 WSMVD	Р	UTU 38421	N2995
BONANZA 1023-18K3AS	18	100S	230E	4304751061	18112	1	GW	Р	SWNW	D	1 WSMVD	Р	UTU 38421	N2995
BONANZA 1023-18K3BS	18	100S	230E	4304751063	18113		GW	Р	SWNW	D	1 WSMVD	P	UTU 38421	N2995
BONANZA 1023-18M2AS	18	100S	230E	4304751064	18117	1	GW	Р	SWNW	D	1 WSMVD	Р	UTU 38421	N2995
BONANZA 1023-18M2DS	18	100S	230E	4304751065	18116		GW	Р	SWNW	D	1 WSMVD	Р	UTU 38421	N2995
BONANZA 1023-18N2AS	18	100S	230E	4304751066	18114		GW	Р	SWNW	D	1 WSMVD	Р	UTU 38421	N2995
BONANZA 1023-18N2DS	18	100S	230E	4304751067	18115	1	GW	Р	SWNW	D	1 WSMVD	Р	UTU 38421	N2995
BONANZA 1023-10F	10	100S	230E	4304738225	16565		GW	Р	SENW		MVRD	Ρ	UTU 72028	N2995
BONANZA 1023-6D1AS	6	100S	230E	4304751450	18320		GW	Р	NENW	D	WSMVD	P	UTU 38419	N2995
BONANZA 1023-6C1CS	6	100S	230E	4304751448	18319		GW		NENW	D			UTU 38419	N2995
BONANZA 1023-6D3AS	6	100S	230E	4304751452	18317		GW	Р	NENW	D	WSMVD	Р	UTU 38419	N2995

Sundry Number: 27428 API Well Number: 43047520800000

	STATE OF UTAH				FORM 9	
ι	DEPARTMENT OF NATURAL RESOUR DIVISION OF OIL, GAS, AND MI		i	5.LEASE DESIGNATION AND SERI UTU73450	AL NUMBER:	
SUNDR	Y NOTICES AND REPORTS	ON	WELLS	6. IF INDIAN, ALLOTTEE OR TRIB	E NAME:	
	posals to drill new wells, significantly reenter plugged wells, or to drill horiz n for such proposals.			7.UNIT or CA AGREEMENT NAME PONDEROSA	:	
1. TYPE OF WELL Gas Well		8. WELL NAME and NUMBER: BONANZA 1023-5N4AS				
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	ISHORE, L.P.			9. API NUMBER: 43047520800000		
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th	n Street, Suite 600, Denver, CO, 802		NE NUMBER: 9 720 929-6	9. FIELD and POOL or WILDCAT: 5NATERAL BUTTES		
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0220 FSL 1060 FWL				COUNTY: UINTAH		
QTR/QTR, SECTION, TOWNSH Qtr/Qtr: SWSW Section: (S	STATE: UTAH				
11. CHECI	K APPROPRIATE BOXES TO INDICA	ATE N	ATURE OF NOTICE, REPOR	T, OR OTHER DATA		
TYPE OF SUBMISSION			TYPE OF ACTION			
	ACIDIZE		LITER CASING	CASING REPAIR		
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS		CHANGE TUBING	CHANGE WELL NAME		
	CHANGE WELL STATUS		COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE		
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	NEW CONSTRUCTION				
	OPERATOR CHANGE	□ Р	LUG AND ABANDON	PLUG BACK		
SPUD REPORT	PRODUCTION START OR RESUME		ECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMA	ATION	
Date of Spud:	REPERFORATE CURRENT FORMATION	□ s	IDETRACK TO REPAIR WELL	TEMPORARY ABANDON		
	TUBING REPAIR		ENT OR FLARE	WATER DISPOSAL		
✓ DRILLING REPORT Report Date:	WATER SHUTOFF		I TA STATUS EXTENSION	APD EXTENSION		
7/6/2012		п.				
	WILDCAT WELL DETERMINATION		OTHER	OTHER:		
	COMPLETED OPERATIONS. Clearly shown the month of June 2012.	_		Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD C July 09, 2012	NLY	
NAME (PLEASE PRINT)	PHONE NUM	BER	TITLE			
Jaime Scharnowske	720 929-6304		Regulartory Analyst			
SIGNATURE N/A			DATE 7/6/2012			

	FORM 9							
ı	DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	G	5.LEASE DESIGNATION AND SERIAL NUMBER: UTU73450					
SUNDR	Y NOTICES AND REPORTS ON	WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:					
Do not use this form for pro current bottom-hole depth, I FOR PERMIT TO DRILL form	pen existing wells below laterals. Use APPLICATION	7.UNIT or CA AGREEMENT NAME: PONDEROSA						
1. TYPE OF WELL Gas Well		8. WELL NAME and NUMBER: BONANZA 1023-5N4AS						
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	ISHORE, L.P.		9. API NUMBER: 43047520800000					
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th	PH n Street, Suite 600, Denver, CO, 80217 37	ONE NUMBER: 79 720 929-6	9. FIELD and POOL or WILDCAT: 5NIATUERAL BUTTES					
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0220 FSL 1060 FWL			COUNTY: UINTAH					
QTR/QTR, SECTION, TOWNSH Qtr/Qtr: SWSW Section: (IIP, RANGE, MERIDIAN: 05 Township: 10.0S Range: 23.0E Meridian	: S	STATE: UTAH					
11. CHECI	K APPROPRIATE BOXES TO INDICATE N	IATURE OF NOTICE, REPOR	T, OR OTHER DATA					
TYPE OF SUBMISSION		TYPE OF ACTION						
_	ACIDIZE	ALTER CASING	CASING REPAIR					
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME					
SUBSEQUENT REPORT	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE					
Date of Work Completion:	DEEPEN	FRACTURE TREAT	NEW CONSTRUCTION					
	OPERATOR CHANGE	PLUG AND ABANDON	PLUG BACK					
SPUD REPORT Date of Spud:	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION					
	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON					
✓ DRILLING REPORT	TUBING REPAIR	VENT OR FLARE	WATER DISPOSAL					
Report Date: 8/2/2012	WATER SHUTOFF	SI TA STATUS EXTENSION	APD EXTENSION					
0/2/2012	WILDCAT WELL DETERMINATION	OTHER	OTHER:					
	COMPLETED OPERATIONS. Clearly show all por the month of July 2012. Well	•	epths, volumes, etc. Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY August 08, 2012					
Cara Mahler	720 929-6029	Regulatory Analyst I						
SIGNATURE N/A		DATE 8/2/2012						

	STATE OF UTAH		FORM 9
ı	DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	3	5.LEASE DESIGNATION AND SERIAL NUMBER: UTU73450
SUNDR	Y NOTICES AND REPORTS ON	WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
Do not use this form for pro current bottom-hole depth, I FOR PERMIT TO DRILL form	posals to drill new wells, significantly deep reenter plugged wells, or to drill horizontal l n for such proposals.	pen existing wells below laterals. Use APPLICATION	7.UNIT or CA AGREEMENT NAME: PONDEROSA
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: BONANZA 1023-5N4AS
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	ISHORE, L.P.		9. API NUMBER: 43047520800000
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th	PHC n Street, Suite 600, Denver, CO, 80217 377	ONE NUMBER: 79 720 929-6	9. FIELD and POOL or WILDCAT: 5NIATUERAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0220 FSL 1060 FWL			COUNTY: UINTAH
QTR/QTR, SECTION, TOWNSH	HP, RANGE, MERIDIAN: 05 Township: 10.0S Range: 23.0E Meridian:	s	STATE: UTAH
11. CHECI	K APPROPRIATE BOXES TO INDICATE N	ATURE OF NOTICE, REPOR	T, OR OTHER DATA
TYPE OF SUBMISSION		TYPE OF ACTION	
_	ACIDIZE	ALTER CASING	CASING REPAIR
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME
SUBSEQUENT REPORT	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE
Date of Work Completion:	DEEPEN	FRACTURE TREAT	NEW CONSTRUCTION
	OPERATOR CHANGE	PLUG AND ABANDON	PLUG BACK
SPUD REPORT Date of Spud:	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION
	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON
✓ DRILLING REPORT	TUBING REPAIR	VENT OR FLARE	WATER DISPOSAL
Report Date: 9/4/2012	WATER SHUTOFF	SI TA STATUS EXTENSION	APD EXTENSION
9/4/2012	WILDCAT WELL DETERMINATION	OTHER	OTHER:
Started comple	COMPLETED OPERATIONS. Clearly show all peeting the well in August 2012. V	Vell TD at 8,630	epths, volumes, etc. Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY September 06, 2012
NAME (PLEASE PRINT) Lindsey Frazier	PHONE NUMBER 720 929-6857	TITLE Regulatory Analyst II	
SIGNATURE		DATE	
N/A		9/4/2012	

Sundry Number: 30179 API Well Number: 43047520800000

	STATE OF UTAH		FORM 9
	DEPARTMENT OF NATURAL RESOURCE DIVISION OF OIL, GAS, AND MIN		5.LEASE DESIGNATION AND SERIAL NUMBER: UTU73450
SUNDR	RY NOTICES AND REPORTS (ON WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
	oposals to drill new wells, significantly or reenter plugged wells, or to drill horizor n for such proposals.		7.UNIT or CA AGREEMENT NAME: PONDEROSA
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: BONANZA 1023-5N4AS
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	NSHORE, L.P.		9. API NUMBER: 43047520800000
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18tl	h Street, Suite 600, Denver, CO, 80217	PHONE NUMBER: 3779 720 929-0	9. FIELD and POOL or WILDCAT: 5NATERAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0220 FSL 1060 FWL			COUNTY: UINTAH
QTR/QTR, SECTION, TOWNSH	HIP, RANGE, MERIDIAN: 05 Township: 10.0S Range: 23.0E Merid	ian: S	STATE: UTAH
11. CHEC	K APPROPRIATE BOXES TO INDICAT	E NATURE OF NOTICE, REPOR	RT, OR OTHER DATA
TYPE OF SUBMISSION		TYPE OF ACTION	
	ACIDIZE	ALTER CASING	CASING REPAIR
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME
	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	FRACTURE TREAT	NEW CONSTRUCTION
	OPERATOR CHANGE	PLUG AND ABANDON	PLUG BACK
SPUD REPORT Date of Spud:	✓ PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION
Date of Spau.	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON
	TUBING REPAIR	VENT OR FLARE	WATER DISPOSAL
DRILLING REPORT Report Date:	WATER SHUTOFF	SI TA STATUS EXTENSION	APD EXTENSION
9/6/2012	WILDCAT WELL DETERMINATION	OTHER	OTHER:
THE SUBJECT WEL 2012 AT 13:00 HOU SUBMITT	COMPLETED OPERATIONS. Clearly show a LL WAS PLACED ON PRODUCT RS. THE CHRONOLOGICAL W ED WITH THE WELL COMPLET	ION ON SEPTEMBER 6, FELL HISTORY WILL BE TION REPORT.	Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY September 28, 2012
NAME (PLEASE PRINT) Jaime Scharnowske	PHONE NUMBI 720 929-6304	Regulartory Analyst	
SIGNATURE N/A		DATE 9/24/2012	

Form 3160-4 (August 2007)

UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

FORM APPROVED OMB No. 1004-0137 Expires: July 31, 2010

	WELL (COMPL	ETION C	R REC	OMP	LETIC	N REPO	RT	AND LOG	ì			ase Serial N TU73450	ło.	
la. Type of	f Well	Oil Well	Gas '	Well [Dry	0	ther					6. If	Indian, Allo	ttee or	Tribe Name
b. Type o	f Completion	o Otho		□ Work	Over	☐ De	epen 🔲 1	Plug	Back 🔲	Diff. Re	svr.	7. Uı U	nit or CA Ap TU88209A	greeme	nt Name and No.
2. Name of	Operator	L R GAS	ONSHORE	Δl. ·lich/IL	Con	tact: JA	IME L. SCH	ARI	NOWSKE DARKO.COM		,		ase Name a		
	PO BOX DENVER	173779		iwidii. on	IIVIE.OO			e No	. (include area	_			PI Well No.		43-047-52080
4. Location	of Well (Re	port locat	ion clearly ar	nd in accou	dance w	ith Fede	eral requireme	ents)	*			10. F	ield and Po- ATURAL E	ol, or E	Exploratory
At surfa	nce SWSV prod interval i						56338 W Lo	n							Block and Survey S R23E Mer SLB
			SL 2464FW									12. C	County or Pa	ırish	13. State
At total 14. Date Sp 04/18/2		5VV 042F	15. D	ate T.D. R /26/2012	eached	HOIVI	16. I) & <i>i</i>		ly to Pro	od.		levations (I	OF, KB 5 GL	
18. Total D	Depth:	MD TVD	8630 8365] 1	9. Plug	Back T		5	8574 8309	T	20. Der	th Brid	ige Plug Se		MD TVD
21. Type E CBL/GI	lectric & Oth R/CCL/TEM	ner Mecha IP	nical Logs R	un (Submi	it copy o	f each)			22.	Was D	ell cored ST run? onal Su	i? vey?	🛛 No [] Yes	(Submit analysis) (Submit analysis) (Submit analysis)
23. Casing ar	nd Liner Rec	ord (Repo	ort all strings							, 1	<u> </u>			-	
Hole Size	Size/G		Wt. (#/ft.)	Top (MD)		ottom MD)	Stage Cemer Depth	nter	No. of Sks Type of Cer	nent	Slurry (BB		Cement T	`op*	Amount Pulled
20.000 11.000	+	000 STL 325 IJ-55	36.7 28.0		0	40 2449				28 575				0	
7.875	1	.500 I-80			0	8620				1348				1430	
					-		 	-						-+	
24. Tubing	Record		l	L											
	Depth Set (M		acker Depth	(MD)	Size	Depti	h Set (MD)	Pa	acker Depth (N	(ID)	Size	De	pth Set (MI)) [Packer Depth (MD)
2.375	ng Intervals	8003				26.	Perforation F	Reco	rd	<u>_</u>		<u>.L.</u>			
	ormation		Тор		Bottom	- 20.			Interval	T	Size	N	lo. Holes_		Perf. Status
A)	WASA	ATCH		5799	64	27			5799 TO 64	27	0.3		44	OPEN	
B)	MESAVE	ERDE		7125	84	58			7125 TO 84	58	0.3	60	143	OPEN	
C) D)				-+			· · · · · · · · · · · · · · · · · · ·			\dashv		╅			
	racture, Treat	ment, Cei	ment Squeeze	e, Etc.									·····		
	Depth Interve								nount and Typ		terial				
	57	799 TO 8	458 PUMP 7	,997 BBLS	SLICK	H2O & 1	174,785 LBS 3	30/50	OTTAWA SA	ND	-				
	ion - Interval												16.0		
Date First Produced 09/06/2012	Test Date 09/07/2012	Hours Tested 24	Test Production	Oil BBL 0.0	Gas MCF 170			Oil Gra		Gas Gravity		Producti	on Method FLOW	/S FRO	M WELL
Choke Size 20/64	Tbg. Press. Flwg. 1368 SI	Csg. Press. 1987.0	24 Hr. Rate	Oil BBL 0	Gas MCF 17			Jas:Oi Ratio	ii	Well Sta	tus SW				
	tion - Interva														
Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF			Oil Gra Corr. A		Gas Gravity		Producti	on Method		RECEIVE
Choke Size	Tbg. Press. Flwg.	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF			Pas:Oi Ratio	ii	Well Sta	tus				OCT 0 3 201
C Iture	SI		ditional data		a aida)		<u>. </u>			I			····		DIV. OF OIL, GAS & MI

28b. Prod	uction - Interv	ral C			<u>,</u>							
Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API		as ravity	Production Method		
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	V	Vell Status			
28c. Prod	uction - Interv	al D		<u> </u>		<u></u>						
Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API		as Tavity	Production Method		
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas:Oil Ratio	V	Vell Status			
29. Dispo	sition of Gas(i	Sold, used J	or fuel, vent	ed, etc.)								
30. Sumn	ary of Porous	Zones (Inc	lude Aquife	rs):					31. For	nation (Log) Mar	rkers	
tests,	all important including dept coveries.	zones of po h interval t	rosity and coested, cushic	ontents there on used, time	eof: Cored i e tool open,	ntervals and all flowing and sh	l drill-stem nut-in pressure	es				
	Formation		Тор	Bottom		Descriptions	, Contents, etc	c.		Name		Top Meas. Depth
The fi hole v run fr	vas drilled wi	e surface ith an 11? o 8,620 ft.	hole was d	rilled with a so was run	from surfa	The remaind ace to 5044 ft; ell history, per	LTC csg was	e S	BIR MA WA	EEN RIVER D'S NEST HOGANY SATCH SAVERDE		1213 1535 1965 4429 6447
33. Circle	enclosed atta	chments:			······							
	ectrical/Mecha ndry Notice fo	-	-			 Geologic R Core Analy 	-		 DST Rep Other: 	oort	4. Direction	nal Survey
3. Su	ndry Notice ic	n prugging	and cement	vermeation		o. Cole Milary	313		, other.			
34. I here	by certify that	the foregoi	Electi	onic Subm	ission #152	plete and corre 694 Verified b OIL & GAS O	y the BLM W	Vell Info	ormation Sys	records (see attac stem.	ched instructio	ns):
Name	(please print)	JAIME L.	SCHARNO	WSKE			Title E	REGUL	ATORY AN	ALYST		· , , ,
Signat	ture	(Electroni	c Submissi	on)			Date <u>1</u>	0/01/20	012			
Title 18 U	J.S.C. Section ited States any	1001 and T false, ficti	itle 43 U.S. tious or frad	C. Section 1 ulent statem	212, make ents or repr	it a crime for as	ny person knov to any matter v	wingly a	and willfully is jurisdiction	to make to any de	epartment or a	gency

Operation Summary Report

Well: BONANZA 1023-5N4AS RED	Spud Date: 4/24/2	012
Project: UTAH-UINTAH	Site: BONANZA 1023-5M PAD	Rig Name No: PROPETRO 12/12, ENSIGN 138/138
Event: DRILLING	Start Date: 4/12/2012	End Date: 5/27/2012

Active Datum: R	KB @5,3	09,00usft (ab	ove Mean S	ea	UWI: SV	V/SW/0/	10/S/23/E/	5/0/0/26/PM/S/220	D/W/0/1060/0/0
Date		Time art-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
4/23/2012	11:00	- 20:00	9.00	DRLPRV	01	Α	Р	Year Assessment of the Assessm	MOVE RIG, MUD TANKS, FRAC TANKS, CAMPS, AND ALL MISC. EQUIPMENT 22 MILES TO BON 1023-5M PAD
	20:00	- 0:00	4.00	DRLPRV	01	В	P		RIG UP CLOSED LOOP SYSTEM, RIG, AND FLOW LINE PREPARE TO SPUD
4/24/2012	0:00	- 1:00	1.00	DRLSUR	08	В	Z		WORK ON DREDGE PUMPS IN BAFFLE TANK
	1:00	- 2:00	1.00	DRLSUR	02	С	P		PICK UP MUD MOTOR AND 12.25 BIT SPUD 4/24/12 01:00 DRILL 12.25" HOLE 44 ft TO 210 ft (166 FT, 166 FPH). 12.25 in. BIT ON 38 TH RUN. WOB 5-15 Kips. GPM 491. PSI ON/OFF 600/400. SURFACE RPM 55, MOTOR 83, TOTAL RPM 138. UP/DOWN/ ROT 20/20/20 K. DRAG 0. CIRCULATE RESERVE PIT
	2:00	- 5:00	3.00	DRLSUR	06	Α	Р		DRILL DOWN TO 210 ft W/6 in COLLARS. PRE JOB SAFETY MEETING, LAY DOWN 6 in DRILL COLLARS, 12 1/4 in BIT. MAKE UP Q506F 11in BIT (4 TH RUN) (SN 7138966) PICK UP 8 in DIRECTIONAL ASSEMBLY. INSTALL EM TOOL. ORIENT TO MUD MOTOR AND TRIP IN HOLE
		- 11:00 - 12:30	1.50	DRLSUR	02	C	.p		DRILL 11" HOLE F/ 220' - 1010' WOB 20-27 ROT 45-65 GPM 490 DHR 83 AVE ROP 133 FT HR UP/DN/ROT 69/52/60 LAST SURVEY 15.04 DEG 70.37 AZI 4 HIGH 2' LEFT OF TARGET SLIDING 24% CIRCULATE THROUGH CLOSED LOOP SYSTEM PUMPING OUT SAND TRAP 20 MIN EVERY HOUR AND CLEANING EVERY 800' SCREENS ON SHAKERS 170/200 WORK ON TOP DRIVE BRAKE
	12:30	- 0:00	11.50	DRLSUR	02	С	P		DRILL 11" HOLE F/ 1010' - 2030' WOB 20-27 ROT 45-65 GPM 490 DHR 83 AVE ROP 107 FT HR UP/DN/ROT 80/53/67 LAST SURVEY 23.83 DEG 70.69 AZI 7' HIGH 2' LEFT OF TARGET SLIDING 20% CIRCULATE THROUGH CLOSED LOOP SYSTEM PUMPING OUT SAND TRAP 20 MIN EVERY HOUR AND CLEANING EVERY 800' SCREENS ON SHAKERS 170/200

Vell: BONANZA	1023-5	V4AS RED						Spud Date: 4/24/2012
Project: UTAH-L	INTAH			Site: BON	NANZA 1	023-5M P	AD	Rig Name No: PROPETRO 12/12, ENSIGN 138/138
vent: DRILLING	3			Start Date	e: 4/12/20	012		End Date: 5/27/2012
ctive Datum: R	KB @5,3	309.00usft (ab	ove Mean S	ea	UWI: S	W/SW/0/	10/S/23/E/5/	0/0/26/PM/S/220/W/0/1060/0/0
evel) Date	1000	Time	Duration	Phase	Code	Sub	P/U	MD From Operation
4/25/2012	<u> </u>	tart-End - 5:30	(hr) <u> </u> 5,50	DRLSUR	02	Code C	<u> </u>	(usff) DRILL 11" HOLE F/ 2030' - 2460' T.D.
			-,					WOB 20-27
								ROT 45-65
								GPM 490
								DHR 83
								AVE ROP 78 FT HR
								UP/DN/ROT 84/56/70
								LAST SURVEY 23.3 DEG 72.86 AZI
								5.5 HIGH 1' LEFT OF TARGET
								SLIDING 21%
								CIRCULATE THROUGH CLOSED LOOP SYSTEM
								PUMPING OUT SAND TRAP 20 MIN EVERY HOUR
								AND CLEANING EVERY 800' SCREENS ON
	5:30	7.20	2.00	DDI GIID	ΔE	С	Р	SHAKERS 170/200 CIRCULATE AND CONDITION MUD PRIOR TO LDDS
	7:30	- 7:30	2.00	DRLSUR	05		P	
	7.30	- 11:30	4.00	DRLSUR	06	Α	-	TOOH FOR DIRECTIONAL ASSEMBLY L/D MWD
								TOOLS, DIRECTIONAL MONELS, MUD MOTOR AND
	11.20	- 15:00	3.50	DRLSUR	12	С	P	BIT RIG UP AND RUN 55 JOINTS 8.625" 28# J55
	11.00	- 15.00	3.30	DINESON	12	U	•	SURFACE CASING SHOE AT 2438' BAFFLE AT
								2394' NO ISSUES, RUN 200' OF 1" PIPE DOWN BACK
								SIDE
	15:00	- 18:00	3,00	DRLSUR	12	Ε	Р	PRESSURE TEST LINES TO 2000 PSI. PUMP 135
								BBLS OF WATER AHEAD, CATCH PSI. PUMP 20
								BBLS OF 8,3# GEL WATER AHEAD, MIX AND PUMP
								(300 SX) 61.4 BBLS OF 15.8# 1.15 YD 5 GAL/SK
								PREMIUM CEMENT W/ 2% CALC, DROP PLUG ON
								FLY. DISPLACE W/ 143 BBLS OF H20. NO CIRC
								THROUGH OUT. FINAL LIFT OF 210 PSI AT 4
								BBL/MIN. BUMP PLUG WITH 500 PSI FOR 5 MIN.
								FLOAT HELD. MIX AND PUMP (150 SX) 30.7 BBLS
								OF SAME TAIL CEMENT W 4% CALC. DOWN
								BACKSIDE, NO CEMENT TO SURFACE. SHUT DOWN AND CLEAN TRUCK. WAIT 1.5 HOURS MIX AND
								PUMP (125 SX) 22.4 BBLS OF SAME TAIL CEMENT
								W/ 4% CALC. DOWN BACKSIDE NO CEMENT TO
								SURFACE, NO CEMENT TO SURFACE, SHUT DOWN
								AND CLEAN TRUCK. WILL TOP OUT ON NEXT JOB.
								BLM HAND ON LOCATION FOR CASING AND
								CEMENT JOB. RELEASE RIG @ 1800 4/25/12
5/20/2012	18:00	- 0:00	6.00	MIRU	01	Α	Р	RIGGED DOWN THE DERRICK AND LAYED IT OVER
								PREPED THE DERRICK FOR MOVING / RIGGING
								DOWN THE FLOOR, GAS BUSTER, AND PITS.
5/21/2012	0:00	- 7:00	7.00	RDMO	01	E	P	RIGGED DOWN THE GAS BUSTER, FLARE LINES,
								CHOKE LINES, MUD LINES, HYDRAULIC LINES, AND
								WATER LINES.
	7:00	- 7:30	0.50	RDMO	01	E	Р	HELD A SAFETY MEETING WITH RW JONES, THE
								RIG PERSONEL, SERVICE PERSONEL ON LOCATION
								DISCUSSED TRAFFIC, SNAKES UNDER SKIDS,
								CABLE/BRIDLES, TRAVEL ROUTE AND PINCH
						_	_	POINTS.
	7:30	- 13:00	5.50	MIRU	01	В	P	LOADED EQUIPMENT STAGED IT IN AND SET IN THE
								BACK YARD,

9/25/2012 10:58:47AM

					Opera	tion Si	umm	ary Report	
Well: BONANZA	1023-5N	I4AS RED						Spud Date: 4/24	
Project: UTAH-U	INTAH			Site: BON	NANZA 10	23-5M PA	'D		Rig Name No: PROPETRO 12/12, ENSIGN 138/138
Event: DRILLING	3			Start Date	e: 4/12/20				End Date: 5/27/2012
Active Datum: R Level)	KB @5,3	09.00usft (al	bove Mean Se	a	UWI: SV	V/SW/0/10	/S/23/E	:/5/0/0/26/PM/S/220	D/W/0/1060/0/0
Date		Time art-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
	13:00	- 14:00	1.00	MIRU	01	В	P		WE STOPPED TO REMOVE THE WEATHERFORD WELLHEAD ADAPTER AND TO INSTALL THE CAMERON WELLHEAD ADAPTER. THEN SET THE BOP ON THE WELLHEAD.
	14:00	- 16:00	2.00	MIRU	01	В	P		START RIGGING UP THE BACK YARD / SET MATT BOARDS /SET THE SUB HALVES AND GAS BUSTER
	16:00	- 18:00	2.00	MIRU	01	В	P		PIN THE DERRICK HALVES / SET MATTS / PIN THE DERRICK TO THE SUB
									RW JONES: 9 TRUCKS / 2 FORKLIFTS / 2 PUSHERS / 2 SWAMPERS / 1 PILOT CAR / 16 PEOPLE FOR A 6 MILE MOVE TRUCKS ARRIVED AT 07:00 LEFT AT 18:00
									MOUNTAIN WEST: 2 HAUL TRUCKS / 1 - 1TON / 1 ELECTRICIAN / 1 WATER TRUCK / 6 PEOPLE
									PRICE WATER: 2 PEOPLE
									JD FIELD SERVICE : 1 ROUSTABOUT
									PROMETEUS: 1 TRUCK / 3 PEOPLE
	18:00	- 0:00	6.00	MIRU	01	В	P		STUBS AND STUBBS: 2 PEOPLE RUNNING ELECTRIC LINES / PURGING THE LNG SYSTEM AND GETTING THE GENS FIRED UP / TRANSFERED A NEW SPOOL OF DRILLING LINE TO THE DOLLY
5/22/2012	0:00	- 3:30	3.50	MIRU	01	В	P		FINISH TRANSFERING NEW DRILLING LINE TO THE DOLLY
	3:30	- 4:30	1.00	MIRU	01	В	Р		STRING UP DRILLING LINE.
	4:30	- 7:30	3.00	MIRU	01	В	P		PREP THE DERRICK TO RAISE IT
	7:30	- 8:30	1.00	MIRU	01	В	Р		RAISE AND PIN THE DERRICK
		- 9:30	1.00	MIRU	01	В	P		RIG UP ELECTRIC AND HYDRAULIC LINES TO THE DERRICK
	9;30	- 11:30	2.00	MIRU	01	В	Р		USED AN RW JONES TRUCK TO SET THE CATWALK. CLEARANCE BETWEEN THE WELLHEAD CAPS AND THE CATWALK BEAMS WAS VERY CLOSE.
	11:30	- 12:00	0.50	MIRU	01	В	P		SET THE BEAVER SLIDE
	12:00	- 15:00	3.00	MIRU	01	В	Р		UNTIE LINES ANEQUIPMENT IN THE DERRICK. PIN THE IDH AND THE BOARD.
	15:00	- 16:00	1,00	MIRU	01	В	P		RIG UP THE FLOOR
	16:00	- 17:30	1.50	MIRU	01	В	Р		SLIP DRILLING LINE ONTO THE DRUM
		- 21:30	4.00	MIRU	01	В	P		RIG UP THE GAS BUSTER, FLARE LINES, FLOW LINE, MUD LINES, PASON AND GERONIMO LINE
		- 23:00		PRPSPD	14	A	P		NIPPLE UP THE BOP
	23:00	- 0:00	1.00	PRPSPD	15	Α	P		HELD A SAFETY MEETING W/ A-1 TESTING / RIGGED UP THE TESTING LINE AND TESTED THE UPPER AND LOWER KELLY VALVES & TIW 250/LOW 5000/HIGH

9/25/2012 10:58:47AM 3

AG II. DOMANT	1 4000 ENIAS DEC					78.00	Spud Date: 4/24/2012
	1023-5N4AS RED	.	Sito: PO	VANZA 10	123.5M D	AD	Rig Name No: PROPETRO 12/12, ENSIGN 138/138
roject: UTAH-L					· · · · · · · · ·		
vent: DRILLIN				e: 4/12/20		0/6/22/E/	End Date: 5/27/2012 5/0/0/26/PM/S/220/W/0/1060/0/0
ctive Datum: R evel)	KKB @5,309.00usft (al	ove Mean Se	a		(V/SVV/O/1	0/3/23/E/	
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From Operation (usft)
5/23/2012	0:00 - 3:30	3.50	PRPSPD	15	Α	P	CONTINUE TESTING BOP, TEST FLOOR VALVES, TOP DRIVE VALVE, INSIDE & OUTSIDE KILL LINE VALVES, INSIDE CHOKE LINE VALVE, HCR VALVE, CHOKE MANIFOLD, PIPE RAMS, BLIND RAMS 250 PSI F/ 5 MIN, 5000 PSI F/ 10 MIN, ANNULAR 250 PSI F/ 5 MIN, 2500 PSI F/ 10 MIN, CASING TO 1500 PSI F/ 30 MIN, RIG DOWN TESTER.
	3:30 - 4:00	0.50	PRPSPD	14	В	Р	INSTALL WEAR BUSHING
	4:00 - 5:00	1,00	PRPSPD	07	Α	Р	RIG SERVICE, GREASE DRAW WORKS, PUMPS, FIX LEAK ON IRON ROUGHNECK, LEVEL CATWALK
	5:00 - 10:30	5.50	PRPSPD	06	Α	P	PICKUP, SMITH MDI 616 BIT, HUNTING 2.9 RPG/ 1.5 BEND MOTOR , MWD ORIENT, DIRECTIONAL TOOL: 30 JTS HWDP, 42 JTS DRILL PIPE , TAG CEMENT @ 2358'
	10:30 - 12:00	1.50	DRLPRO	02	D	P	DRILL CEMENT, FLOAT EQUIP F/ 2358' TO 2470', SPUD 5/23/2012 10:30
	12:00 - 15:00	3.00	DRLPRO	02	D	P	DRILL F/ 2470' TO 2741', 271' @ 90.3' HR WOB 18-20, SPM 120, GPM 540 RPM 50/156 TRQ ON/OFF 8/6 PSI ON/OFF 1830/1385 PU/SO/ROT 98/89/94 SLIDE: 102' IN .67 HRS = 153' HR ROTATE: 169' IN 2.33 HRS = 72.5' HR BIT POSITION: @ 2678' 2.45 S, 2.67 E WATER 8.4 NOV: DEWATERING
	15:00 - 15:30	0.50	DRLPRO	07	Α	P	RIG SERVICE, GREASE BLOCKS, TOP DRIVE, DRAV
	15:30 - 17:00	4.50	DDI DDO	no.	D	7	WORKS, (SWIVEL PACKING LEAKING) CHANGE OUT SWIVEL PACKING
	17:00 - 0:00	1.50 7.00	DRLPRO DRLPRO	08 02	D B	P	DRILL F/ 2741' TO 3485' , 744' @ 106.2' HR
							WOB 18-20, SPM 120, GPM 540 RPM 50/156 TRQ ON/OFF 10/7 PSI ON/OFF 1922/1512 PU/SO/ROT 122/111/115 SLIDE: 180' IN 1.59 HRS = 113.20' HR ROTATE: 564' IN 5.41 HRS = 104.4' HR BIT POSITION: @ 3434' 12.81 N, 4.97 W WATER 8.4 NOV: DEWATERING

Nell: BONANZ	A 1023-5N	I4AS RED						Spud Date: 4/2	4/2012		
Project: UTAH-	JINTAH			Site: BON	ANZA 1	023-5M P	AD		Rig Name No: PROPETRO 12/12, ENSIGN 138/138		
vent: DRILLIN	G			Start Date	: 4/12/20)12			End Date: 5/27/2012		
ctive Datum: F evel)	RKB @5,3	09.00usft (ab	ove Mean S	ea	UWI: S\	N/SW/0/1	0/S/23/E/5	/0/0/26/PM/S/22	D/W/0/1060/0/0		
Date	年 医乳球腺囊炎	Time art-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation		
5/24/2012	0:00	- 6:00	6.00	DRLPRO	02	D	P		DRILL F/ 3485' TO 4027', 542' @ 90.3' HR WOB 18-20, SPM 120, GPM 540 RPM 50/157 TRQ ON/OFF 10/7 PSI ON/OFF 1987/1493 PU/SO/ROT 122/111/115 SLIDE: 171' IN 2.26 HRS = 75.6' HR ROTATE: 371' IN 3.74 HRS = 99.1' HR BIT POSITION: 3970' 4.7' N, 12.26' W WATER 8.4 NOV: DEWATERING		
	6:00	- 15:30	9.50	DRLPRO	02	D	P		DRILL F/ 4027' TO 5042', 1015' @ 106.8' HR WOB 18-20, SPM 120, GPM 540 RPM 50/157 TRQ ON/OFF 10/7 PSI ON/OFF 2013/1573 PU/SO/ROT 148/130/135 SLIDE: 121' IN 1 HR = 121' HR ROTATE: 894' IN 8.5 HRS = 105.1' HR WATER 8.4 NOV: DEWATERING		
	15;30	- 16:30	1.00	DRLPRO	08	Α	Z		RIG BLACKED OUT, GENERATOR #2 WOULD NOT STAY ON LINE		
	16:30	- 17:30	1.00	DRLPRO	02	D	P		DRILL F/ 5042' TO 5168', 126' @ 126' HR WOB 18-20, SPM 120, GPM 540 RPM 50/157 TRQ ON/OFF 10/7 PSI ON/OFF 2013/1573 PU/SO/ROT 148/130/135 SLIDE: 35' IN .25 HRS = 140' HR ROTATE: 91' IN .75 HRS = 121/3' HR BIT POSITION:@ 5168' 10.84' N, 17.05' W WATER 8.4 NOV: DEWATERING		
	17:30	- 18:00	0.50	DRLPRO	07	Α	P		RIG SERVICE, GREASE BLOCKS, TOP DRIVE, DRAW WORKS, PUMPS		
	18:00	- 0:00	6.00	DRLPRO	02	D	P		DRILL F/ 5168' TO 5704', 536' @ 89.3' HR WOB 18-20, SPM 120, GPM 540 RPM 50/157 TRQ ON/OFF 11/9 PSI ON/OFF 2100/1748 PU/SO/ROT 165/135/140 SLIDE: 82' IN 1.66 HRS = 49.3' HR ROTATE: 454' IN 4.34 HRS = 104.6' HR BIT POSITION: @ 5705' 13.1' N, 3.8' E WATER 8.4 NOV: DEWATERING		

			19.545(5.2)				y Report
Well: BONANZA 1023-5N	4AS RED						Spud Date: 4/24/2012
Project: UTAH-UINTAH			Site: BON	NANZA 10	023-5M PA	\D 	Rig Name No: PROPETRO 12/12, ENSIGN 138/138
Event: DRILLING			Start Date	e: 4/12/20)12		End Date: 5/27/2012
Active Datum: RKB @5,30 .evel)	09.00usft (abo	ove Mean S	ea	UWI: SI	N/SW/0/10)/S/23/E/5/	0/0/26/PM/S/220/W/0/1060/0/0
Date	l'ime art-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From Operation (usft)
5/25/2012 0:00	- 6:00 - 12:30	6.50	DRLPRO	02	D D	P	DRILL F/ 5704' TO 6303', 599' @ 99.8' HR WOB 18/20 SPM 120, GPM 540 RPM 50/157 TRQ ON/OFF 13/9 PSI ON/OFF 2240/1763 PU/SO/ROT 165/135/149 SLIDE: 12' IN .25 HRS = 48' HR ROTATE: 587' IN 102' HR BIT POSITION: @ 6145' 15.6' N , .70' W WATER 8.4 NOV: DEWATERING DRILL F/ 6303' TO 6807' , 504' @ 77.5' HR WOB 18/20 SPM 120, GPM 540 RPM 50/157 TRQ ON/OFF 13/9 PSI ON/OFF 2268/1790 PU/SO/ROT 169/140/154 SLIDE: 40' IN .83 HRS = 48.1' HR ROTATE: 464' IN 5.67 HRS = 81.8' HR WATER 8.4, PRETREATING WATER NOV: DEWATERING SOME OF THE CONNECTIONS WERE SLOW DUE TO HIGH WINDS AND SERVICE LOOP HANGING UP
	- 13:00 - 13:30	0.50 0.50	DRLPRO DRLPRO	08 02	A D	Z P	RIG REPAIR, GENERATOR #2 KEPT GOING OFF LINE DRILL F/ 6807' TO 6870', 63',.5 HRS = 126'HR WOB 18/20 SPM 120/540 RPM 50/144 TRQ ON/OFF 13/9 PSI ON/OFF 2250/1780 PU/SO/ROT 169/140/154 WT 9.0, VIS 36 NOV: CYCLE CENTRAFUGE 1 HR EVERY 3 HRS, DEWATER 1' STREAM
13:30	- 14:00	0.50	DRLPRO	07	Α	P	RIG SERVICE, GREASE BLOCKS, TOP DRIVE, DRAW WORKS, PUMPS
14:00	- 0:00	10.00	DRLPRO	02	D	P	DRILL F/ 6870' TO 7563', 693' @ 69.3' HR WOB 18/20 SPM 110, GPM 495 RPM 50/1144 TRQ ON/OFF 16/12 PSI ON/OFF 2570/1965 PU/SO/ROT 182/141/160 SLIDE: 47' IN .92 HRS = 51' HR ROTATE: 646' IN 9.08' = 71.1' HR BIT POSITION: @ 7501' 13.6' N, 2.9' W NOV: CYCLING CENTRAFUGE 1 HR EVERY 3 HRS, DEWATERING 1" STREAM SOME OF THE CONNECTIONS WERE SLOW DUE TO

9/25/2012 10:58:47AM

Well: BONANZA	1023-51	14AS RED						Spud Date: 4/24/2012	
Project: UTAH-L	JINTAH			Site: BON	ANZA 1	023-5M P	AD.	Rig Name No: PROPETRO 12/12, ENSIGN 138/	138
Event: DRILLING	3			Start Date	: 4/12/20	012		End Date: 5/27/2012	
Active Datum: R Level)	KB @5,3	09.00usft (ab	ove Mean S	ea	UWI: S	N/SW/0/1	D/S/23/E/5	/0/0/26/PM/S/220/W/0/1060/0/0	
Date		Time art-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From Operation (usft)	
5/26/2012	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	- 6:00 - 16:30	6.00	DRLPRO	02	D	P .	DRILL F/ 7563' TO 8005', 442' @ 73.6' HR WOB 18/21 SPM 110 , GPM 450 RPM 55/130 TRQ ON/OFF 15/11 PSI ON/OFF 2620/2020 PU/SO/ROT 188/145/164 WT 10.8, VIS 36 SLIDE: 0 ROTATE: 442' IN 6 HRS = 73.6' HR BIT POSITION: 7942' IN 14.9' N , .30 E NOV: CYCLING CENTRAFUGE 1 HR EVERY 3 HI DEWATERING 1" STREAM PUMPING LCM SWEEPS LOST APPROX 125 BBLS MUD TO SEEPAGE & 2 BBLS OVER SHAKERS DRILL F/ 8005' TO 8630' , 625' @ 59.5' HR WOB 18/21 SPM 100 , GPM 450 RPM 55/130 TRQ ON/OFF 17/12 PSI ON/OFF2730/2310 PU/SO/ROT 192/140/170 WT 11.4, VIS 41 SLIDE: 0 ROTATE: 625' IN 10.5 HRS = 59.5' HR BIT POSITION: @ TD 8630' 10.8' N , 10.9' W NOV: CYCLING CENTRAFUGE 1 HR EVERY 3 HI DEWATERING 1" STREAM PUMPING LCM SWEEPS LOST APPROX 125 BBLS MUD TO SEEPAGE & 2	25 RS,
	16:30	- 18:00	1.50	DRLPRO	05	С	Р	BBLS OVER SHAKERS CIRCULATE F/ SHORT TRIP	
		- 18:30	0.50	DRLPRO	07	A	Р	RIG SERVICE, GREASE BLOCKS, TOP DRIVE, D WORKS, PUMPS	
		- 20:00	1.50	DRLPRO DRLPRO	06 06	E E	P P	SHORT TRIP PUMP OUT 2 STANDS ,PULL 8 STA SHORT TRIP IN HOLE , NO PROBLEMS	פחווי
		- 21:00 - 23:00	1.00 2.00	DRLPRO	06 05	C	P	CIRC & COND F/ TRIP OUT OF HOLE	
		- 0:00	1.00	DRLPRO	05 06	A	P	TRIP OUT OF HOLE @ 7584', (PUMP OUT 2	
5/27/2012	0:00	- 5:00	5.00	DRLPRO	06	A	P	STANDS, ROTATE OUT 3 STANDS) TRIP OUT OF HOLE, LAYDOWN MWD, MOTOR,	віт
JIZ1 120 12	5:00	- 5:30	0.50	DRLPRO	14	В	P	PULL WEAR BUSHING	
	5:30	- 6:30	1.00	DRLPRO	12	A	P	SAFETY MEETING W/ FRANKS WEST STATES, UP CASERS	RIG
	6:30	- 15:30	9.00	DRLPRO	12	С	P	RUN 203 JTS (85 JTS LT&C, 118 JTS DQX) 4.5, 11.6#, I80 PROD CASING, FILL PIPE @ 716', 242 5017', LAND ON CAMERON FLUTED HANGER @ 8619', 85000#, TOP OF FLOAT 8574, TOP OF MARKER JT 6277', X/O 5025'	
	15:30	- 16:30	1.00	DRLPRO	05	D	Р	CIRC F/ CEMENT, RIG DOWN CASERS, SAFETY MEETING W/ BJ SERVICES	,

US ROCKIES REGION Operation Summary Report Spud Date: 4/24/2012 Well: BONANZA 1023-5N4AS RED Rig Name No: PROPETRO 12/12, ENSIGN 138/138 Site: BONANZA 1023-5M PAD Project: UTAH-UINTAH End Date: 5/27/2012 Event: DRILLING Start Date: 4/12/2012 UWI: SW/SW/0/10/S/23/E/5/0/0/26/PM/S/220/W/0/1060/0/0 Active Datum: RKB @5,309.00usft (above Mean Sea Level) Date Phase Code Sub P/U MD From Operation Time Duration Start-End Code (usft) DRLPRO 16:30 - 19:30 3,00 12 DROPPED BOTTOM PLUG, PUMPED 25 BBL 11.8 WATER SPACER, 403 SX PREMIUM LITE II CEMENT + 0.15% BWOC R-3 + 0.25 LBS/SX CELLO FLAKE + 5 LBS/SX KOL SEAL + 0.4% BWOC SODIUM METASILICATE + 6% BWOC BENTONITE II +.6 BWOC FL-52 + 119.7% FRESH WATER 12.0# 2.26 YIELD LEAD CEMENT, 945 SX 50:50 POZ (ASH FLY) CLASS G + 0.005 LBS/SX STATIC FREE + 10% BWOW SODIUM CHLORIDE + 0.15% BWOC R-3 +.5% BWOC EC1 + 2% BENTONITE II + 59% FRESH WATER, DROPPED THE TOP PLUG, DISPLACE W/ 133.5 BBLS CLAYCARE + 1 GAL MAGNACIDE @ 8.34 PPG WATER , FINAL LIFT 2200 PSI, BUMPED BLUG @ 2850 PSI , FLOATS HELD, 0 BBLS CEMENT BACK TO PIT , TOP OF TAIL EST @ 3680 ' TOP OF LEAD 500', FLUSH STACK, R/D CEMENTERS, SET PACK OFF 19:30 - 20:00 0.50 DRLPRO NIPPLE DOWN BOP, RELEASE RIG 5/27/2012 20:00 TO BONANZA 1023-5N3CS WELL 2 OF 7

9/25/2012 10:58:47AM

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1 General

1.1 Customer Information

Company	US ROCKIES REGION
Representative	
Address	

1.2 Well/Wellbore Information

Well	BONANZA 1023-5N4AS RED	Wellbore No.	ОН	
Well Name	BONANZA 1023-5N4AS	Wellbore Name	BONANZA 1023-5N4AS	
Report No.	1	Report Date	8/21/2012	
Project	UTAH-UINTAH	Site	BONANZA 1023-5M PAD	
Rig Name/No.		Event	COMPLETION	
Start Date	8/21/2012	End Date	9/6/2012	
Spud Date	4/24/2012	Active Datum	RKB @5,309.00usft (above Mean Sea Level)	
UWI	SW/SW/0/10/S/23/E/5/0/0/26/PM/S/220/W/0/1060	/0/0		

1.3 General

Contractor	Job Method	Supervisor	
Perforated Assembly	Conveyed Method		

1.4 Initial Conditions

1.5 Summary

Fluid Type		Fluid Density	Gross Interval	5,799.0 (usft)-8,458.0 (usft	Start Date/Time	8/21/2012 12:00AM
Surface Press		Estimate Res Press	No. of Intervals	44	End Date/Time	8/21/2012 12:00AM
TVD Fluid Top		Fluid Head	Total Shots	187	Net Perforation Interval	56.00 (usft)
Hydrostatic Press		Press Difference	Avg Shot Density	3.34 (shot/ft)	Final Surface Pressure	
Balance Cond	NEUTRAL				Final Press Date	

2 Intervals

2.1 Perforated Interval

The contract of the state of the contract of t	CL@ CCL-T MD Top sft) S (usft) (usft)	(usft)	a na antana ang Parintal Parintal	ires/ Diamete Carr Type /S Shot r (in)	Stage No. Carr Phasing Size (*) (in)	Charge Desc / Charge Charge Reason Misrun Manufacturer Weight (gram)
8/21/2012 WASATCH/ 12:00AM	5,799.0	5,800.0	4.00	0.360 EXP/	3.375 90.00	23.00 PRODUCTIO

2.1 Perforated Interval (Continued)

Date	Formation/ Reservoir	CCL@ (usft)	CCL-T	MD Top (usft)	MD Base (usft)	Shot Density	Misfires/ Add. Shot	Diamete	Carr Type /Stage No	Carr	Phasing	Charge Desc/Charge	Charge Reason	Misrun
	Reservoir	(usit)	(usft)	(usit)	(usit)	(shot/ft)	Add. Shot	r (in)		Size (in)	()	Manufacturer	Weight (gram)	
8/21/2012	WASATCH/	1 (1 (2 (2 (2 (2 (2 (2 (2 (2 (2 (2 (2 (2 (2	1 saldord	5,917.0	5,919.0	3.00		0.360	EXP/	3.375	120.00		23.00 PRODUCTIO	
12:00AM	1		1										, N	:
	WASATCH/			6,050.0	6,053.0	4.00	:	0.360	EXP/	3.375	90.00		23.00 PRODUCTIO	
12:00AM														
8/21/2012 12:00AM	WASATCH/	1		6,278.0	6,280.0	3.00	:	0.360	EXP/	3.375	120.00		23.00 PRODUCTIO N	1
8/21/2012 12:00AM	WASATCH/		:	6,380.0	6,382.0	4.00		0.360	EXP/	3.375	90.00		23.00 PRODUCTIO N	
8/21/2012 12:00AM	WASATCH/			6,425.0	6,427.0	4.00		0.360	EXP/	3.375	90.00		23.00 PRODUCTIO N	1
8/21/2012 12:00AM	MESAVERDE/		1	7,125.0	7,126.0	3.00		0.360	EXP/	3.375	120.00		23.00 PRODUCTIO N	1
8/21/2012 12:00AM	MESAVERDE/	*	2 1 1	7,144.0	7,145.0	3.00		0.360	EXP/	3.375	120.00		23.00 PRODUCTIO	**************************************
8/21/2012 12:00AM	MESAVERDE/			7,176.0	7,177.0	3.00		0.360	EXP/	3.375	120.00		23.00 PRODUCTIO)
	MESAVERDE/	1	1 1 1	7,208.0	7,209.0	3.00	!	0.360	EXP/	3.375	120.00		23.00 PRODUCTIO	
	MESAVERDE/			7,293.0	7,294.0	4.00	·	0.360	EXP/	3.375	90.00		23.00 PRODUCTIO	
and the second second	MESAVERDE/			7,336.0	7,338.0	4.00		0.360	EXP/	3.375	90.00		23.00 PRODUCTIO	
8/21/2012 12:00AM	MESAVERDE/		1	7,421.0	7,422.0	3.00		0.360	EXP/	3.375	120.00		23.00 PRODUCTIO	
8/21/2012 12:00AM	MESAVERDE/			7,437.0	7,438.0	3.00		0.360	EXP/	3.375	120.00		23.00 PRODUCTIO N	
8/21/2012 12:00AM	MESAVERDE/			7,447.0	7,448.0	3.00		0.360	EXP/	3.375	120.00		23.00 PRODUCTIO	
	MESAVERDE/			7,469.0	7,470.0	3.00		0.360	EXP/	3.375	120.00		23.00 PRODUCTIO	:
	MESAVERDE/			7,502.0	7,503.0	3.00		0.360	EXP/	3.375	120.00		23.00 PRODUCTIO	
	MESAVERDE/	1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	1	7,528.0	7,529.0	4.00		0.360	EXP/	3.375	90.00		23.00 PRODUCTIO	
	MESAVERDE/		1	7,547.0	7,548.0	4.00		0.360	EXP/	3.375	90.00	A	23.00 PRODUCTIO	
	MESAVERDE/	1		7,592.0	7,593.0	3.00		0.360	EXP/	3.375	120.00		23.00 PRODUCTIO	1
	MESAVERDE/			7,614.0	7,615.0	3.00		0.360	EXP/	3.375	120.00		23.00 PRODUCTIO N	
8/21/2012 12:00AM	MESAVERDE/			7,649.0	7,650.0	3.00		0.360	EXP/	3.375	120.00	AMERICAN SECTION AND ASSESSMENT OF	23.00 PRODUCTIO N	

2.1 Perforated Interval (Continued)

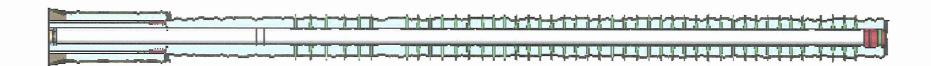
Date	Formation/	CCL@	CCL-T	MD Top	MD Base	Shot	Misfires/	Diamete	Carr Type /Stage No	Carr	Phasing	Charge Desc/Charge	Charge	Reason	Misrun
	Reservoir	(usft)	S (usft)	(usft)	(usft)	Density (shot/ft)	Add. Shot	r (in)		Size (in)	(9)	Manufacturer	Weight (gram)		
8/21/2012 12:00AM	MESAVERDE/	4.1 4 .1 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	(usity	7,667.0	7,668.0	3.00		0.360	EXP/	3.375	120.00	(1. 17. 1. 18. 18. 1) (1. 11. 19. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.		PRODUCTIO	
	MESAVERDE/		1	7,716.0	7,718.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO	
8/21/2012	MESAVERDE/	+ 1	1	7,752.0	7,754.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO	
	MESAVERDE/	\$; :	7,810.0	7,811.0	3.00		0.360	EXP/	3.375	120.00		23.00	N PRODUCTIO	·
	MESAVERDE/		ļ	7,834.0	7,835.0	3.00		0.360	, EXP/	3.375	120.00		23.00	N PRODUCTIO	
12:00AM 8/21/2012	MESAVERDE/	V		7,870.0	7,871.0	3.00		0.360	EXP/	3.375	120.00	e See and the see	23.00	N PRODUCTIO	
12:00AM 8/21/2012	MESAVERDE/	i i	1	7,892.0	7,893.0	3.00		0.360	EXP/	3.375	120.00			N PRODUCTIO	
12:00AM	MESAVERDE/		1	7,926.0		3.00		0.360		3.375	120.00		: :	N PRODUCTIO	1
12:00AM	!													N	
12:00AM	MESAVERDE/		·	7,945.0		3.00		0.360		3.375	120.00		23.00	PRODUCTIO N	· }
8/21/2012 12:00AM	MESAVERDE/		1	7,980.0	7,982.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	!
8/21/2012 12:00AM	MESAVERDE/	ļ		8,031.0	8,032.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO N	
8/21/2012 12:00AM	MESAVERDE/			8,074.0	8,075.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO	
8/21/2012 12:00AM	MESAVERDE/			8,099.0	8,100.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO	
	MESAVERDE/			8,108.0	8,109.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO	
	MESAVERDE/	1		8,128.0	8,129.0	3.00		0.360	EXP/	3.375	120.00		23.00	PRODUCTIO	-i (
8/21/2012	MESAVERDE/		i	8,149.0	8,150.0	3.00		0.360	EXP/	3.375	120.00		23.00	N PRODUCTIO	1
	MESAVERDE/			8,172.0	8,173.0	3.00		0.360	EXP/	3.375	120.00		23.00	N PRODUCTIO	
12:00AM 8/21/2012 12:00AM	MESAVERDE/			8,192.0	8,193.0	3.00		0.360	EXP/	3.375	120.00		23.00	N PRODUCTIO	
	MESAVERDE/	1		8,396.0	8,397.0	4.00		0.360	EXP/	3.375	90.00		23.00	N PRODUCTIO	
	MESAVERDE/			8,437.0	8,438.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO	! !
	MESAVERDE/			8,449.0	8, 4 51.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO	1

2.1 Perforated Interval (Continued)

Date	Formation/ Reservoir	CCL@ (usft)	CCL-T S (usft)	MD Top (usft)	MD Base (usft)	Shot Density (shot/ft)	Misfires/ Add. Shot	Diamete r (in)	Carr Type /Stage No	Carr Size (in)	Phasing (°)	Charge Desc /Charge Manufacturer	Charge Weight (gram)	Reason	Misrun
8/21/2012 12:00AM	MESAVERDE/			8,456.0	8,458.0	4.00		0.360	EXP/	3.375	90.00		23.00	PRODUCTIO N	

3 Plots

3.1 Wellbore Schematic



Well: BONANZA	1023-5	N4AS RED			Spud Date: 4/24/2012						
Project: UTAH-U	JINTAH			Site: BO	NANZA 10	23-5M P	AD		Rig Name No: ROCKY MOUNTAIN WELL SERVICE 3/3		
Event: COMPLE	TION			Start Dat	e: 8/21/20	12			End Date: 9/6/2012		
Active Datum: R Level)	KB @5,3	09,00usft (al	pove Mean Se	ea	UWI: S\	N/SW/0/1	0/S/23/E/5	5/0/0/26/PM/S/22	20/ W /0/1060/0/0		
Date	C 12 (12 12 12 12 12 12 12 12 12 12 12 12 12 1	Time arf-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation		
4/24/2012		-									
8/21/2012	7:00	- 7:15	0.25	FRAC	48		P		HELD SAFETY MEETING: SAFETY SIGNS		
	7:15	- 10:15	3.00	FRAC	33	С	Р				
									FILL SURFACE CSG. MIRU B&C QUICK TEST.		
									PSI TEST T/ 1000 PSI. HELD FOR 15 MIN LOST 21		
									PSI.		
									PSI TEST T/ 3500 PSI, HELD FOR 15 MIN LOST 29		
									PSI.		
									1ST PSI TEST T/ 7000 PSI. HELD FOR 30 MIN LOST 973 PSI.		
									NO COMMUNICATION OR MIGRATION WITH		
									SURFACE CSG		
									BLEED OFF PSI, MOVE T/ NEXT WELL.		
									SWIFW		

Р

В

36

7:00 - 7:15

8/27/2012

0.25

FRAC

HSM, REVIEW PROCEDURE/ SLIPS TRIPS & FALLS

9/25/2012 11:02:40AM 1

Operation Summary Report

Well: BONANZA 1023-5N4AS RED	Spuc	d Date: 4/24/2012
Project: UTAH-UINTAH	Site: BONANZA 1023-5M PAD	Rig Name No: ROCKY MOUNTAIN WELL SERVICE 3/3
Event: COMPLETION	Start Date: 8/21/2012	End Date: 9/6/2012

Active Datum: RKB @5,309.00usft (above Mean Sea

UWI: SW/SW/0/10/S/23/E/5/0/0/26/PM/S/220/W/0/1060/0/0

Level)

Date		Time tart-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From Operation (usft)
	7:15	- 17:00	9.75	FRAC	37	В	Р	MIRU CASED HOLE SOLUTIONS & SUPERIOR FRAC
								EQUIP.

PERF & FRAC FOLLOWING WELL AS PER DESIGN W/ 30/50 MESH SAND & SLK WTR. ALL CBP'S ARE HALIBURTON 8K CBP'S. REFER TO STIM PJR FOR FLIUD, SAND AND CHEMICL VOLUME PUM'D

PERF STG #1] P/U RIH W/PERF GUN, PERF MESAVERDE USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE. AS PERSAY IN PROCEDURE, X OVER TO FRAC CREW

FRAC STG #1] WHP=150#, BRK DN PERFS=5,187#, @=4.8 BPM, INJ RT=52.3, INJ PSI=5,109#, INITIAL ISIP=2,003#, INITIAL FG=.68, FINAL ISIP=2,241#, FINAL FG=,70, AVERAGE RATE=52, AVERAGE PRESSURE=4,967#, MAX RATE=52.5, MAX PRESSURE=5,745#, NET PRESSURE INCREASE=238#, 21/24 88% CALC PERFS OPEN. X OVER TO WIRE LINE

PERF STG #2] P/U RIH W/ HALIBURTON 8K CBP & PERF GUN, SET CBP @=8,223', PERF MESAVERDE USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE. AS PERSAY IN PROCEDURE, X OVER TO FRAC CREW

FRAC STG #2] WHP=1,555#, BRK DN PERFS=2,485#, @=4.1 BPM, INJ RT=52, INJ PSI=4.441#, INITIAL ISIP=1.415#, INITIAL FG=.61. FINAL ISIP=2,191#, FINAL FG=.71, AVERAGE RATE=52.2, AVERAGE PRESSURE=4,473#, MAX RATE=52.5, MAX PRESSURE=4,998#, NET PRESSURE INCREASE=776#, 21/24 88% CALC PERFS OPEN. X OVER TO WIRE LINE

PERF STG #3] P/U RIH W/ HALIBURTON 8K CBP & PERF GUN, SET CBP @=8,012', PERF MESAVERDE USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE. AS PERSAY IN PROCEDURE, X OVER TO FRAC CREW

FRAC STG #3] WHP=1,757#, BRK DN PERFS=4,813#, @=4.8 BPM, INJ RT=51.8, INJ PSI=4,689#, INITIAL ISIP=2,160#, INITIAL FG=.71, FINAL ISIP=1,845#, FINAL FG=.67, AVERAGE RATE=51.5, AVERAGE PRESSURE=4,653#, MAX RATE=51.8, MAX PRESSURE=6,275#, NET PRESSURE INCREASE=-315#, 24/24 100% CALC PERFS OPEN. X OVER TO WIRE LINE

PERF STG #4] P/U RIH W/ HALIBURTON 8K CBP & PERF GUN, SET CBP @=7,784', PERF MESAVERDE USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE. AS PERSAY IN PROCEDURE, X OVER TO FRAC CREW

						KIES RI Summa	EGION Iry Report	
Vell: BONANZA	1023-5N4AS RED		<u>. 100.500</u>	<u> </u>			Spud Date: 4/2	4/2012
Project: UTAH-U	Project: UTAH-UINTAH Site: Bo					PAD		Rig Name No: ROCKY MOUNTAIN WELL SERVICE 3/3
Event: COMPLE	TION		Start Dat	te: 8/21/20	012			End Date: 9/6/2012
Active Datum: Rh	(B @5,309.00usft (a	above Mean Se	еа	UWI: S	W/SW/0/	10/S/23/E/	5/0/0/26/PM/S/22	20/ W /0/1060/0/0
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation
								PERFS=1,745#, @=3.2 BPM, INJ RT=53.6, INJ PSI=4,032#, INITIAL ISIP=1,491#, INITIAL FG=.63, FINAL ISIP=1,867#, FINAL FG=.68, AVERAGE RATE=53.8, AVERAGE PRESSURE=4,081#, MAX RATE=54.2, MAX PRESSURE=4,510#, NET PRESSURE INCREASE=376#, 24/24 100% CALC PERFS OPEN, X OVER TO WIRE LINE
								PERF STG #5] P/U RIH W/ HALIBURTON 8K CBP & PERF GUN, SET CBP @=7,578', PERF MESAVERDE USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE. AS PERSAY IN PROCEDURE, X OVER TO FRAC CREW [MISSFIRE POOH FIX PROBLEM RERUN] SWIFN

9/25/2012 11:02:40AM

3

Operation Summary Report Spud Date: 4/24/2012 Well: BONANZA 1023-5N4AS RED Project: UTAH-UINTAH Site: BONANZA 1023-5M PAD Rig Name No: ROCKY MOUNTAIN WELL SERVICE **Event: COMPLETION** Start Date: 8/21/2012 End Date: 9/6/2012 UWI: SW/SW/0/10/S/23/E/5/0/0/26/PM/S/220/W/0/1060/0/0 Active Datum: RKB @5,309.00usft (above Mean Sea Level) P/U Operation Phase Code Date Time Duration Sub **MD From** (usft) Start-End (hr) Code 7:15 FRAC 36 R - 11:45 4.50 FRAC STG #5] WHP=1,210#, BRK DN PERFS=1,842#, @=4.5 BPM, INJ RT=51.9, INJ PSI=3,859#, INITIAL ISIP=1,277#, INITIAL FG=.61, FINAL ISIP=1,868#, FINAL FG=.69, AVERAGE RATE=51.7, AVERAGE PRESSURE=4,111#, MAX RATE=51,9, MAX PRESSURE=4,658#, NET PRESSURE INCREASE=591#, 23/23 100% CALC PERFS OPEN. X OVER TO WIRE LINE PERF STG #6] P/U RIH W/ HALIBURTON 8K CBP & PERF GUN, SET CBP @=7,368', PERF MESAVERDE USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE. AS PERSAY IN PROCEDURE, X OVER TO FRAC CREW FRAC STG #6] WHP=621#, BRK DN PERFS=2,518#, @=4.5 BPM, INJ RT=51.5, INJ PSI=4,962#, INITIAL ISIP=1,139#, INITIAL FG=.60, FINAL ISIP=1,840#, FINAL FG=.69, AVERAGE RATE=51.7, AVERAGE PRESSURE=4,470#, MAX RATE=52, MAX PRESSURE=5,811#, NET PRESSURE INCREASE=701#, 16/24 67% CALC PERFS OPEN. X OVER TO WIRE LINE PERF STG #7] P/U RIH W/ HALIBURTON 8K CBP & PERF GUN, SET CBP @=6,457', PERF MESAVERDE USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE. AS PERSAY IN PROCEDURE, X OVER TO FRAC CREW FRAC STG #7] WHP=154#, BRK DN PERFS=1,459#, @=3.5 BPM, INJ RT=49.3, INJ PSI=5,721#, INITIAL ISIP=885#, INITIAL FG=.58, FINAL ISIP=2,257#, FINAL FG=.79, AVERAGE RATE=52.3, AVERAGE PRESSURE=5,015#, MAX RATE=51.6, MAX PRESSURE=5,769#, NET PRESSURE INCREASE=1,372#, 14/22 64% CALC PERFS OPEN. X OVER TO WIRE LINE PERF STG #8] P/U RIH W/ HALIBURTON 8K CBP & PERF GUN, SET CBP @=6,083', PERF MESAVERDE USING 3-1/8 EXPEND, 23 GRM, 0.36" HOLE. AS PERSAY IN PROCEDURE, X OVER TO FRAC CREW 11:45 - 16:30 4.75 FRAC 46 E Z BLENDER BROKE DOWN, WAITED ON ONE FROM TOWN, SWIFN COULD NOT GET COMPUTER TO BOOT UP W/ BLENDER 7:00 Р 8/29/2012 - 7:15 0.25 FRAC 48 HSM, RIGGING UP / RIGGING DOWN / PRESSURE **TESTING**

9/25/2012

US ROCKIES REGION Operation Summary Report Spud Date: 4/24/2012 Well: BONANZA 1023-5N4AS RED Site: BONANZA 1023-5M PAD Project: UTAH-UINTAH Rig Name No: ROCKY MOUNTAIN WELL SERVICE **Event: COMPLETION** End Date: 9/6/2012 Start Date: 8/21/2012 UWI: SW/SW/0/10/S/23/E/5/0/0/26/PM/S/220/W/0/1060/0/0 Active Datum: RKB @5,309.00usft (above Mean Sea Level) P/U Operation Phase Code Date Time Duration Sub MD From Code (usft) Start-End (hr) P 7:15 - 9:00 FRAC В FRAC STG #8] WHP=430#, BRK DN PERFS=1,693#, 1.75 36 @=4.1 BPM, INJ RT=52, INJ PSI=4,339#, INITIAL ISIP=738#, INITIAL FG=.56, FINAL ISIP=1,442#, FINAL FG=.68, AVERAGE RATE=51.7, AVERAGE PRESSURE=5,155#, MAX RATE=61.9, MAX PRESSURE=5,179#, NET PRESSURE INCREASE=704#, 17/22 77% CALC PERFS OPEN. X OVER TO WIRE LINE P/U RIH W/ HALIBURTON 8K CBP, SET FOR TOP KILL @=5,749 TOTAL FLUID PUMP'D=7,997 BBLS TOTAL SAND PUMP'D=174,785# 9/5/2012 7:00 - 7:15 0.25 DRLOUT HSM-JSA 7:15 - 15:00 С MOVE RIG & EQUIP FROM 1023-6K PAD, MIRU SPOT 7.75 DRLOUT 44 EQUIP, NDWH, NUBOP, PU 3 7/8" BIT & POBS W/ XN SN, RIH W/ 180 JTS 2 3/8" L-80 OFF FLOAT TAG FILL @ 5,719', RU PWR SWIVEL, BRK CIRC PRESS TEST BOP TO 3,000 PSI LOST 0 PSI IN 15 MIN. C/O 30' SAND TAG PLUG #1 @ 5,749', DRL HAL 8K CBP IN 5 MIN, 0 PSI INC, FCP 0 PSI, RIH TAG FILL @ 6,053'. C/O 30' SAND TAG PLUG #2 @ 6,083', DRL HAL 8K CBP IN 15 MIN, 0 PSI INC, FCP 0 PSI, RIH TAG FILL

Р

@6,427'.

HSM-JSA

CLEAN, SWIFN.

C/O 30' SAND TAG PLUG #3 @ 6,457', DRL HAL 8K CBP IN 5 MIN, 400 PSI INC, FCP 300 PSI, CIRC WELL

9/25/2012 11:02:40AM

DRLOUT

48

0.25

7:00

9/6/2012

- 7:15

Well: BONANZA 1023-5N4AS RED Spud Date: 4/24/2012							Spud Date: 4/24	4/2012
Project: UTAH-UINTAH Site: BON			IANZA 10	023-5M F	PAD		Rig Name No: ROCKY MOUNTAIN WELL SERVICE 3/3	
vent: COMPLE	TION		Start Date	e: 8/21/20)12			End Date: 9/6/2012
	KB @5,309.00usft (ab	ove Mean S				10/S/23/E/	5/0/0/26/PM/S/22	0/ W /0/1060/0/0
evel)	😅 ., , , ,							
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation :
	7:15 - 12:00	4.75	DRLOUT	44	С	P		SICP 2,150 PSI, OPEN WELL CONT PU TBG OFF FLOAT RIH TAG FILL @7,338'.
								C/O 30' SAND TAG PLUG #4 @ 7,368', DRL HAL 8K CBP IN 8 MIN, 100 PSI INC, FCP 300 PSI, RIH TAG FILL @ 7,553'.
								C/O 25' SAND TAG PLUG #5 @ 7,578', DRL HAL 8K CBP IN 4 MIN, 50 PSI INC, FCP 300 PSI, RIH TAG FILL @ 7,754'
								C/O 30' SAND TAG PLUG #6 @ 7,784', DRL HAL 8K CBP IN 6 MIN, 100 PSI INC, FCP 350 PSI, RIH TAG FILL @ 7,986'.
								C/O 35' SAND TAG PLUG #7 @ 8,012', DRL HAL 8K CBP IN 5 MIN, 100 PSI INC, FCP 400 PSI, RIH TAG FILL @ 8,193'.
								C/O 30' SAND TAG PLUG #8 @ 8,223', DRL HAL 8K CBP IN 5 MIN, 100 PSI INC, FCP 450 PSI, RIH TAG FILL @ 8,535.
								C/O 40' SAND TO PBTD @ 8,575' CIRC WELL CLEAN, RD PWR SWVEL, POOH LD 19 JTS TBG, LAND TBG W/ 252 JTS 2 3/8" L-80 EOT @ 8,003.18', RD FLOOR & TBG EQUIP, NDBOP, NUWH, DROP BALL POBS @ 1,600 PSI, LET BIT FALL 30 MIN, PRESS TEST FLOWLINES FROM WELLHEAD TO HAL 9,000 TO 3,000 PSI, NO LEAKS, TURN OVER TO FBC, SICP 1900 PSI, SITP 250 PSI, RDMO.
								KB-14' HANGER83' 252 JTS 2 3/8" L-80-7,986.15' POBS-2.20' EOT @ 8,003.18'
	12:00 - 12:00	0.00	DRLOUT	50				TWTR=8,351 BBLS TWR=1,929 BBLS TWLTR=6,422 BBLS WELL TURNED TO SALES @ 1300 HE ON 9/6/2012. 3,000 MCFD, 1920 BWPD, FCP 1950#, FTP 1600#,



US ROCKIES REGION PLANNING

UTAH - UTM (feet), NAD27, Zone 12N BONANZA 1023-5M PAD BONANZA 1023-5N4AS

OH

Survey: Survey #2 SDI MWD PRODUCTION

Standard Survey Report

08 June, 2012





SDI

Survey Report



Company:

US ROCKIES REGION PLANNING

Project: Site:

UTAH - UTM (feet), NAD27, Zone 12N BONANZA 1023-5M PAD

Well:

BONANZA 1023-5N4AS

Wellbore: Design:

OH OΗ Local Co-ordinate Reference:

TVD Reference:

MD Reference:

North Reference:

Survey Calculation Method:

Database:

Site BONANZA 1023-5M PAD

GL 5295 & KB 14 @ 5309.00ft (ENSIGN 138) GL 5295 & KB 14 @ 5309.00ft (ENSIGN 138)

Minimum Curvature

EDM 5000.1 Single User Db

Project

UTAH - UTM (feet), NAD27, Zone 12N

Map System:

Universal Transverse Mercator (US Survey Feet)

Geo Datum: Map Zone:

NAD 1927 (NADCON CONUS) Zone 12N (114 W to 108 W)

System Datum:

Mean Sea Level

Site

BONANZA 1023-5M PAD, SECTION 5 T10S R23E

Site Position:

From:

Lat/Long

Northing: Easting:

14,519,855.22 usft 2,101,131.68 usft

Latitude: Longitude:

39.971338

Position Uncertainty:

Slot Radius:

13.200 in

-109.355659

Grid Convergence:

1.06 °

Well Well Position

+N/-S +E/-W

ОН

BONANZA 1023-5N4AS, 220 FSL 1060 FWL 0.00 ft 0.00 ft

Northing: Easting:

14,519,855.22 usft 2,101,131.68 usft

10.90

Latitude: Longitude:

39.971338 -109,355659

Position Uncertainty

0.00 ft

0.00 ft

Wellhead Elevation:

ft

Ground Level:

65.85

5,295.00 ft

Wellbore

Magnetics

Model Name

Sample Date

Declination (°)

Dip Angle (°)

Field Strength

(nT)

52,247

Design

OH

Audit Notes:

Version:

1.0

Phase:

ACTUAL

Tie On Depth:

0.00

Vertical Section:

Depth From (TVD)

IGRF2010

+N/-S

(ft)

+E/-W (ft)

Direction

(ft)

0.00

04/19/12

0.00

0,00

(°)

72.35

Survey Program

06/08/12 Date

From (ft)

To (ft)

Survey (Wellbore)

Tool Name

Description

10.00 2,489.00 2,338.00 Survey #1 SDI MWD SURFACE (OH)

8,630.00 Survey #2 SDI MWD PRODUCTION (OH)

SDI MWD SDI MWD SDI MWD - Standard ver 1.0.1 SDI MWD - Standard ver 1,0,1

Survey									Control of the Albert
Measured			Vertical			Vertical	Dogleg	Build	Turn
Depth (ft)	Inclination (°)	Azimuth (°)	Depth (ft)	+N/-S (ft)	+E/-W (ft)	Section (ft)	Rate (°/100ft)	Rate (°/100ft)	Rate (°/100ft)
2,338.00	23.30	72.86	2,231.24	178.43	560.81	588.51	0.00	0.00	0.00
2,489.00	22.07	71.97	2,370.55	196.01	616.32	646.74	0.85	-0.81	-0.59
FIRST SDI MI	ND PRODUCTION	ON SURVEY							
2,583.00	23.02	74.73	2,457.37	206,32	650.85	682.76	1.51	1.01	2.94
2,678.00	23.94	77.52	2,544.51	215.37	687.59	720.52	1.52	0.97	2.94
2,772.00	25.59	77.25	2,629.86	223.98	726.01	759.74	1.76	1.76	-0.29
2,869.00	25.85	72.20	2,717.26	235.06	766.58	801.77	2.27	0.27	-5.21
2,962.00	26.73	69.69	2,800.64	248.52	805.50	842.94	1.52	0.95	-2.70
3,056.00	25,15	69.95	2,885.17	262.71	844.09	884.01	1.69	-1.68	0.28
3,151.00	24.71	69.52	2,971.32	276.58	881.66	924.02	0.50	-0.46	-0.45



SDI Survey Report



Company:

US ROCKIES REGION PLANNING

Project:

UTAH - UTM (feet), NAD27, Zone 12N

Site: Well: BONANZA 1023-5M PAD BONANZA 1023-5N4AS

Wellbore: Design:

ОН ОН Local Co-ordinate Reference:

TVD Reference:

MD Reference:

North Reference:

Survey Calculation Method:

Database:

Site BONANZA 1023-5M PAD

GL 5295 & KB 14 @ 5309.00ft (ENSIGN 138)

GL 5295 & KB 14 @ 5309.00ft (ENSIGN 138)

True

Minimum Curvature

EDM 5000.1 Single User Db

Measured			Vertical			Vertical	Dogleg	Build	Turn
Depth	Inclination	Azimuth	Depth	+N/-S	+E/-W	Section	Rate	Rate	Rate
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(°/100ft)	(°/100ft)	(°/100ft)
				V GALLMININ					o A Morro di Novinti di
3,245.00	22.07	68.90	3,057.59	289.81	916,55	961.27	2.82	-2.81	-0.66
3,340.00	21.56	66.67	3,145.78	303.15	949,23	996.46	1.02	-0.54	-2.35
3,434.00	24.16	67.86	3,232.39	317.24	982.91	1,032.83	2.81	2.77	1.27
3,529.00	23.93	70.33	3,319.15	331.05	1,019.06	1,071.47	1.09	-0.24	2.60
3,623.00	25.15	69,87	3,404.66	344.35	1,055.77	1,110.48	1.31	1.30	-0.49
3,718.00	21.54	69.34	3,491.87	357.45	1,091.05	1,148.07	3.81	-3.80	-0.56
3,812.00	20.82	71.88	3,579.52	368.74	1,123.08	1,182.01	1.24	-0.77	2,70
3,907.00	17.50	71.01	3,669.25	378.64	1,152.64	1,213.18	3.51	-3.49	-0.92
4,001.00	17.61	71.35	3,758.87	387.78	1,179.47	1,241.53	0.16	0.12	0.36
4,096.00	15.82	72.35	3,849.85	396,31	1,205.43	1,268.85	1.91	-1.88	1.05
4,191.00	16.28	73.26	3,941.15	404.07	1,230.52	1,295.11	0.55	0.48	0.96
		74.00	4 000 00	440.00	4 050 74	1 240 20	2.04	2.00	0.94
4,286.00	13.24	74.03	4,033.00	410.90	1,253.74	1,319.30	3.21	-3.20	0.81
4,380.00	12.46	75.37	4,124.65	416.42	1,273.90	1,340.19	0.89	-0.83	1.43
4,475.00	10.98	76.18	4,217.66	421.17	1,292.60	1,359.45	1.57	-1.56	0.85
4,569.00	10.02	77.86	4,310.09	425.03	1,309.29	1,376.53	1.07	-1.02	1.79
4,664.00	8.10	83.61	4,403.90	427.51	1,324.02	1,391.32	2.23	-2.02	6.05
4,758.00	7.84	94.12	4,497.00	427.79	1,337.00	1,403.77	1.57	-0,28	11.18
4,853.00	8.18	98.61	4,591.07	426.31	1,350.14	1,415.85	0.75	0.36	4.73
4,947.00	7.69	98.77	4,684.17	424.35	1,362.97	1,427.48	0.52	-0.52	0,17
5,042.00	7.61	98.43	4,778.33	422.46	1,375.48	1,438.82	0.10	-0.08	-0.36
5,136.00	4.92	101.86	4,871.76	420.72	1,385.58	1,447.92	2.89	-2.86	3.65
5,231.00	1.96	98.98	4,966.57	419.63	1,391.17	1,452.92	3.12	-3.12	-3.03
5,326.00	0.82	77.73	5,061.55	419.52	1,393.44	1,455.05	1.30	-1.20	-22.37
5,420.00	1.32	15.55	5,155.53	420.70	1,394.39	1,456.31	1.26	0.53	-66.15
5,515.00	1.12	13.96	5,250.51	422.66	1,394.91	1,457.39	0.21	-0.21	-1.67
5,609.00	0.87	25,11	5,344.50	424.20	1,395.43	1,458.36	0.34	-0.27	11.86
£ 704.00	1.10	314.41	5,439.49	425.49	1,395.09	1,458.42	1.22	0.24	-74.42
5,704.00	1.10					1,456.42	0.40	-0.33	-74.42 -13.68
5,798.00	0.79	301.55	5,533.47	426.46 426.89	1,393.89 1,392.82	1,457.58	0.40	-0.33 -0.18	-13.88
5,893.00	0.62	280.28	5,628.47 5,723.48	426.89	•	1,455.88	0.33	-0.18 -0.19	-22.39 -31.37
5,988.00	0.44	250.48 357.70	5,723.46 5,817.46		1,391.98 1,391.61	1,455.67	0.99	0.28	114.06
6,082.00	0.70	337.70	5,817.46	427.32	1,581.01	1,700,07	0.58	0.20	1 1-7.00
6,177.00	0.70	17.13	5,912.45	428.45	1,391.76	1,456.15	0.25	0.00	20.45
6,271.00	0.66	31.00	6,006.45	429.46	1,392.21	1,456.89	0.18	-0.04	14.76
6,366.00	0.53	44.29	6,101.44	430.25	1,392.80	1,457.68	0.20	-0.14	13.99
6,460.00	0.42	80.05	6,195.44	430.62	1,393.44	1,458.41	0.33	-0.12	38.04
6,555.00	0.44	238.18	6,290.44	430.49	1,393.47	1,458.40	0,89	0.02	166.45
6,649.00	0.48	184.18	6,384.43	429.90	1,393.14	1,457.90	0.45	0.04	-57.45
6,744.00	1.09	289.53	6,479.43	429.81	1,392.26	1,457.04	1.37	0.64	110.89
6,839.00	1.07	289.44	6,574.41	430.40	1,390.57	1,455.61	0.02	-0.02	-0.09
6,933.00	0.85	284.00	6,668.40	430.87	1,389.06	1,454.32	0.25	-0.23	-5.79
7,028.00	0.62	254.61	6,763.39	430.90	1,387.88	1,453.20	0.46	-0.24	-30.94
•					1,387.11				
7,122.00	0.62	213.74	6,857.38	430.34		1,452.30	0.46	0.00	-43.48



SDI Survey Report



Company:

US ROCKIES REGION PLANNING

Project:

UTAH - UTM (feet), NAD27, Zone 12N

Site: Well: BONANZA 1023-5M PAD BONANZA 1023-5N4AS

Wellbore: Design: ОН ОН Local Co-ordinate Reference:

TVD Reference:

MD Reference:

North Reference:

Survey Calculation Method: Database:

Site BONANZA 1023-5M PAD

GL 5295 & KB 14 @ 5309.00ft (ENSIGN 138)

GL 5295 & KB 14 @ 5309.00ft (ENSIGN 138)

True

Minimum Curvature

EDM 5000.1 Single User Db

Measured Depth (ft)	Inclination (°)	Azimuth	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
7,311.00	1.14	155.46	7,046.37	427.94	1,386.97	1,451.43	0.76	0.47	-39.10
7,406.00	1.32	129.10	7,141.35	426.39	1,388.21	1,452.15	0.62	0.19	-27.75
7,501.00	0.66	95.92	7,236.33	425.64	1,389.61	1,453.25	0.89	-0.69	-34.93
7,595.00	0.70	76.72	7,330.33	425.71	1,390.70	1,454.32	0.24	0.04	-20.43
7,690.00	0.66	72.36	7,425.32	426.01	1,391.79	1,455.44	0.07	-0.04	-4.59
7,784.00	0.70	62.13	7,519.31	426.45	1,392.81	1,456.55	0.14	0.04	-10.88
7,879.00	0.44	66,61	7,614.31	426.86	1,393.66	1,457.48	0.28	-0.27	4.72
7,973.00	0.42	92.16	7,708.30	426.99	1,394.34	1,458.16	0.20	-0.02	27.18
8,068.00	0.59	89.44	7,803.30	426.98	1,395.17	1,458.96	0.18	0.18	-2.86
8,162.00	0.64	94,45	7,897.30	426.95	1,396.18	1,459.91	0.08	0.05	5.33
8,257.00	0.79	113.81	7,992.29	426.64	1,397.31	1,460.89	0.30	0.16	20.38
8,351.00	1,06	123.57	8,086.28	425.90	1,398.63	1,461.92	0.33	0.29	10.38
8,446.00	1.12	123.29	8,181.26	424.91	1,400.13	1,463.06	0.06	0.06	-0.29
8,540.00	1.41	122.43	8,275.24	423.78	1,401.88	1,464.38	0.31	0,31	-0.91
8,567.00	1.53	125.52	8,302.23	423.39	1,402.45	1,464.81	0.53	0.44	11.44
LAST SDI MV	VD PRODUCTIO	N SURVEY							
8,630.00	1.53	125.52	8,365.20	422.42	1,403.82	1,465.82	0.00	0.00	0.00

Survey Annotations				
Measured	Vertical	Local Coord	inates	
Depth	Depth	+N/-S	+E/-W	그 항공하는 것을 본러가 되면서 나이가 있었다는데 모든데 되었다.
(ft)	(ft)	(ft)	(ft)	Comment
2,489.00	2,370.55	196,01	616.32	FIRST SDI MWD PRODUCTION SURVEY
8,567.00	8,302.23	423.39	1,402.45	LAST SDI MWD PRODUCTION SURVEY
8,630.00	8,365.20	422,42	1,403.82	SDI PROJECTION TO BIT

Checked By:	Approved By:	Date:
Onconsu by.		

Sundry Number: 47075 API Well Number: 43047520800000

	STATE OF UTAH		FORM 9		
	DEPARTMENT OF NATURAL RESOURC DIVISION OF OIL, GAS, AND MIN		5.LEASE DESIGNATION AND SERIAL NUMBER: UTU73450		
SUNDR	RY NOTICES AND REPORTS	ON WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:		
	oposals to drill new wells, significantly reenter plugged wells, or to drill horizon for such proposals.		7.UNIT or CA AGREEMENT NAME: PONDEROSA		
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: BONANZA 1023-5N4AS		
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	NSHORE, L.P.		9. API NUMBER: 43047520800000		
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18tl	h Street, Suite 600, Denver, CO, 80217	PHONE NUMBER: 73779 720 929-0	9. FIELD and POOL or WILDCAT: 5MATURAL BUTTES		
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0220 FSL 1060 FWL			COUNTY: UINTAH		
QTR/QTR, SECTION, TOWNSH	HIP, RANGE, MERIDIAN: 05 Township: 10.0S Range: 23.0E Merio	lian: S	STATE: UTAH		
11. CHEC	K APPROPRIATE BOXES TO INDICAT	E NATURE OF NOTICE, REPOR	T, OR OTHER DATA		
TYPE OF SUBMISSION		TYPE OF ACTION			
	ACIDIZE	ALTER CASING	CASING REPAIR		
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME		
Approximate date work will start:	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE		
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	FRACTURE TREAT	☐ NEW CONSTRUCTION		
1/7/2014	OPERATOR CHANGE	PLUG AND ABANDON	PLUG BACK		
	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION		
SPUD REPORT Date of Spud:					
	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON		
DRILLING REPORT	TUBING REPAIR	VENT OR FLARE	☐ WATER DISPOSAL		
Report Date:	WATER SHUTOFF	SI TA STATUS EXTENSION	APD EXTENSION		
	WILDCAT WELL DETERMINATION	✓ OTHER	OTHER: Production Enhancement		
The Operator cond the subject well on	COMPLETED OPERATIONS. Clearly show a lucted the following workove 01/07/2014. Please see the vell history for details. Thank	r/wellbore cleanout on attached chronological	Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY January 23, 2014		
NAME (PLEASE PRINT) Kay E. Kelly	PHONE NUMB 720 929 6582	ER TITLE Regulatory Analyst			
SIGNATURE		DATE			
N/A		1/23/2014			

Sundry Number: 47075 API Well Number: 43047520800000

	US ROCKIES REGION												
	Operation Summary Report												
Well: BONANZA 1023-5N4AS RED Spud Date: 4/24/2012													
Project: UTAH-UINTAH Site: BON)23-5M P	AD		Rig Name No:					
Event: WELL WORK EXPENSE Start Dat					4			End Date: 1/7/2014					
Active Datum: Rh Level)	KB @5,309.01ft (abov	e Mean Sea		UWI: S\)/W/0/1060/0/0								
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (ft)	Operation					
1/7/2014	7:00 - 12:30	5.50	MAINT	42				JASON, FLUID LEVEL 3800. 3 RUNS = 30 BBLS.					

1/23/2014 9:42:32AM 1

Sundry Number: 47075 API Well Number: 43047520800000 **US ROCKIES REGION Operation Summary Report** Spud Date: 4/24/2012 Well: BONANZA 1023-5N4AS RED Project: UTAH-UINTAH Site: BONANZA 1023-5M PAD Rig Name No: Event: WELL WORK EXPENSE End Date: 1/7/2014 Start Date: 1/7/2014 UWI: SW/SW/0/10/S/23/E/5/0/0/26/PM/S/220/W/0/1060/0/0 Active Datum: RKB @5,309.01ft (above Mean Sea P/U Date Phase Operation Time Duration Code Sub MD From Start-End (hr) Code (ft) 1/14/2014 7:00 - 12:00 5.00 MAINT 35 SLICKLINE REPORT SERVICE RECORD WELL NAME:Bonanza 1023-5N 4ASJob Code:80012176 WINS #:ZID:CTS953 FOREMAN:V1-Ryan KunkelMECHANICAL:Tim Falcetti SLICKLINE COMPANYJDM SLICKLINE OPERATORBI TroendleTEL.NUMBER:435-828-0596 DATE:1/14/2014Ex. mm/dd/yy JOB DESCRIPTION Plunger not tripping, well dead when I got there, rih w scratcher 8010, rih w broach 8010 heavy fluid in hole hard to get in the hole and pulling overweight coming out of hole, rih w jdc tool 8010 latched and pulled Anadarko bar stock, guaged ok, rih w jdc tool 8011 latched and pulled Pcs titanium bs did not jar or pull over weight, cups were still new, rih w scratcher 8100 sn clean, rih w sample bailer 8570 got sample, dropped Pcs titanium bs and chased to 8011, dropped Anadarko bar stock and turned well FLUID LEVEL4600SEAT NIPPLE DEPTH8012 SN TYPEXTD (Max Depth)8570 JOB DETAILS SPRING AND/OR PRODUTION TOOL DETAIL Spring OutUsed-TitaniumSpring InUsed-Titanium Stuck SpringNo, it came freeCorrosion on SpringNo Bailed AcidNo Broken SpringNoScale on SpringNo Production ToolsNoneDepth of Tool Other HardwareNone PLUNGER DETAIL Stuck PlungerNo, it came freeCorrosion on PlungerNo Broken PlungerNoScale on PlungerNo SOLIDS DETAIL Tight SpotsNoneSeverity of TrashNone Solid sample to turn in YesSolid Sample SourceDrop Down Menu Speculated Type of SolidUnknownSpeculated Depth of Solid LOST SLICKLINE TOOLS Slickline Tools LostNoDepth of Tool JOB CHARGES ITEM# UNITSUNITS\$/UNITTOTAL Hourly Operating Charge5HRS\$125.00\$625.00 Tool Rental0HRS\$0.00\$0.00 Maintenance job charge0JOB\$0.00\$0.00 \$0.00 TOTAL\$625.00

1/23/2014 9:42:32AM 2

RECEIVED: Jan. 23, 2014

Sundry Number: 48959 API Well Number: 43047520800000

	STATE OF UTAH		FORM 9
[DEPARTMENT OF NATURAL RESOURCE DIVISION OF OIL, GAS, AND MIN		5.LEASE DESIGNATION AND SERIAL NUMBER: UTU73450
SUNDR	Y NOTICES AND REPORTS	ON WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
	posals to drill new wells, significantly reenter plugged wells, or to drill horizo n for such proposals.		7.UNIT or CA AGREEMENT NAME: PONDEROSA
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: BONANZA 1023-5N4AS
2. NAME OF OPERATOR: KERR-MCGEE OIL & GAS ON	ISHORE, L.P.		9. API NUMBER: 43047520800000
3. ADDRESS OF OPERATOR: P.O. Box 173779 1099 18th	n Street, Suite 600, Denver, CO, 8021	PHONE NUMBER: 73779 720 929-	9. FIELD and POOL or WILDCAT: 1NATERAL BUTTES
4. LOCATION OF WELL FOOTAGES AT SURFACE: 0220 FSL 1060 FWL			COUNTY: UINTAH
QTR/QTR, SECTION, TOWNSH	HIP, RANGE, MERIDIAN: 05 Township: 10.0S Range: 23.0E Meri	dian: S	STATE: UTAH
11. CHECI	K APPROPRIATE BOXES TO INDICA	TE NATURE OF NOTICE, REPOR	RT, OR OTHER DATA
TYPE OF SUBMISSION		TYPE OF ACTION	
	ACIDIZE	ALTER CASING	CASING REPAIR
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME
	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	FRACTURE TREAT	NEW CONSTRUCTION
12/31/2013	OPERATOR CHANGE	PLUG AND ABANDON	PLUG BACK
SPUD REPORT	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION
Date of Spud:	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON
	TUBING REPAIR	VENT OR FLARE	WATER DISPOSAL
DRILLING REPORT Report Date:	WATER SHUTOFF	SI TA STATUS EXTENSION	APD EXTENSION
	WILDCAT WELL DETERMINATION	✓ OTHER	OTHER: production enhancement
40 DECODINE DRODOGED OF	COMPLETED OPERATIONS. Clearly show		
THE OPERATOR CO	ONDUCTED THE FOLLOWING VIEW SUBJECT WELL ON 12/31/20 DLOGICAL WELL HISTORY FO	WORKOVER/WELLBORE 2013. PLEASE SEE THE	Accepted by the Utah Division of
NAME (PLEASE PRINT)	PHONE NUMB		
Teena Paulo	720 929-6236	Staff Regulatory Specialist	
SIGNATURE N/A		DATE 3/19/2014	

				U	S ROC	KIES RI	EGION				
				Opera	tion S	Summa	ry Report				
Well: BONANZA 1023-5N4AS RED								Spud Date: 4/24/2012			
Project: UTAH-U	IINTAH		Site: BON	NANZA 10	23-5M P	AD		Rig Name No:			
Event: WELL We	ORK EXPENSE		Start Date	e: 12/30/2	.013			End Date: 12/31/2013			
Active Datum: R Level)	KB @5,309.00usft (a	bove Mean Se	ea	UWI: SV	V/SW/0/	10/S/23/E/	5/0/0/26/PM/S/22	20/W/0/1060/0/0			
Date	Time Start-End	Duration (hr)	Phase	Code	Sub Code	P/U	MD From (usft)	Operation			
12/30/2013	7:00 - 11:00	4.00	RDMO	30	G	Р		RD F/ CIGE 22, ROAD TO THE BONANZA 1023-5N4AS			
	11:00 - 12:30	1.50	MIRU	30	Α	Р		MIRU, FCP. 122 PSI. FTP. 122 PSI.BLEW TBG DWN.			
	12:30 - 13:30	1.00	MAINT	30	F	Р		PUMP 30 BBLS DWN TBG & 30 BBLS DWN CSG ND WH, TBG FREE, NU BOP'S, RU FLOOR & TBG EQUIPMENT.			
	13:30 - 16:00	2.50	MAINT	31	l	Р		UNLAND TBG HANGER, PU & RIH 19 JTS. TBG F/ TRAILER, TAG PBTD @ 8574', BTM PERF @ 8458', (116' RATHOLE) LD 1 JNT, POOH S/B 18 JTS. EOT @ 8000', SWI, SDFN.			
12/31/2013	7:00 - 7:15	0.25	MAINT	48		Р		HSM, REVIEW SCANNING TBG.			
	7:15 - 7:30	0.25	MAINT	30	Е	Р		FCP. 150 PSI. SITP. 240 PSI. BLEW TBG DWN, CONTROL TBG W/ 20 BBLS.			
	7:30 - 11:30	4.00	MAINT	45	Α	Р		RU SCAN TECH, POOH & SCAN 252 JTS. 2-3/8" L-80 TBG, LD 10 JTS. DUE TO LIGHT TO MED BARIUM SCALE, RD SCAN TECH.			
	11:30 - 17:00	5.50	MAINT	31	I	Р		PU 1.875 X 1.78 LSN, RIH 60 JTS. 2-3/8" L-80 TBG, RIH 1.910 & BROACH TBG TO SN, RIH 100 JTS. 2-3/8" L-80 TBG, RIH 1.910 & BROACH TBG TO SN, RIH 92 JTS. 2-3/8" L-80 TBG, LAND TBG W/ 252 TOTAL JTS. EOT @ 8001.71', RIH 1.910 & BROACH TBG TO SN, RD FLOOR & TBG EQUIPMENT, ND BOP'S, NU WH, CLEAN LOCATION, RD, WILL MOVE THURSDAY A.M.			
								TBG DETAIL:			
								KB			

3/19/2014 12:22:15PM 1